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WORK FOR THE MONTH.

NOVEMBER.

COLLECTING MATERIALS FOR MANURE.

We know not how we can better subserve your interests, than by calling your attention to, and endeavoring to impress upon you, the great benefit you will derive from making the collection of rough materials, to be converted into manure, an imperative duty—an important part of your system of farming,—as let what may be said to the contrary, *mould is the vital principle of every soil.* The truth of this proposition will not be denied by those who may take into consideration the fact that mould is the result of the decomposition of organic and inorganic bodies which once had life, and therefore, contain those elements which are capable of reproducing life in the form of vegetable products. Hence then, as *mould* is so important to your success, and it is impossible to supply it to your land, by the ordinary mode of accumulation, by the means of the stable and cow-yards, in sufficient quantities to replace the extractions of crops and grazing, it will strike every farmer, who may reflect upon the subject, that it is proper that he should adopt extra means to make up for the deficiency, and as the result of his reflection he will admit, that any expense he may incur in the accumulation of rough materials will be brought back to him principal and interest in the superior quality and increased products of his land—nay that the interest will be in a compound ratio to the principal thus expended. There is no one except he who has made the collection of rough materials for making manure a part of his system of farming, can form any just idea of the quantity of good manure that can be thus made, nor of its meliorating influence upon his arable lands, or of the increase in produce. What we here advise is the result of our own personal experience and observation. We, therefore, advise every farmer and planter to put all his available force to work in the collection of every kind of rough material convertible into manure, and, in the first place, to have it spread on his cow and cattle yards, hog-pens and sheep folds, to a sufficient depth to absorb all the liquid voidings of the animals. If he can accomplish it, 12 inches in depth will not be too much. These rough materials should be so disposed of as to form each yard or place of deposit into a slight basin-like shape, to prevent the urinary discharges being lost by being washed away; and it will be well too to have an additional quantity of rough materials hauled and conveniently deposited so as to occasionally add a fresh quantity to the surface of the several yards. As the yards may be filled up, plaster should be spread over the mass, in proportion of 1 bushel to every twenty two-horse loads of the former.

Some may ask, where are the rough materials to be procured? And we reply, by reiterating that there are but few landed estates that have not enough of such raw materials on them to answer the calls of the arable portion of the land.

FATTENING HOGS.

The moment the mast in your woods ceases to keep your hogs in a growing and improving condition, put them in the pens, and when penned treat them as we advised last month. You should at all events not delay the time of taking up too late to deny you time to complete the process of fattening before the intense cold of winter sets in. Be sure to provide your hogs with good feeding and sleeping apartments, and be careful to supply the latter with fresh leaves or straw at least twice a week, in order that they may repose comfortably and cleanly.

PLOUGHING STIFF CLAYS.

If you have a field of stiff clay that you purpose cultivating next spring, plough it as early this fall as your force will permit you. In ploughing it, lap your furrows so as to expose the greater surface to the frosts of winter and early spring. By such exposure the tenacity of the clay will be broken down, and the soil rendered much more friable, pleasant, and easy to work next spring when you are about to set your crop. Here we wish to repeat our caution: Recollect that clay lands should never be ploughed when either wet or dry, but that you should select such times for such work when the condition of the soil is *moist;* for stiff clays when ploughed wet are injured rather than benefitted, and will be found intractable throughout the ensuing season, and such is the case, measurably, when ploughed in a state of dryness.

If the subsoil of such clay land is *not wet,* no better time can be found than when fall ploughing is being carried on, to accompany the furrow plough

with the subsoil plough. The use of the latter will increase the cost of preparation, but believe us when we say—it will pay well for any extra expense thereby incurred. Bear this in mind, however, it is worse than useless to use the subsoil plough on wet soils. The remedy for such being thorough draining.

If the fall and winter ploughed land should need liming, you can not select a better time to apply it than just after the ploughing is completed. We would slake the lime with strong salt brine, and make the application as soon as the lime falls into powder.

ROOTS OF ALL KINDS.

If you have not already had your roots dug and stored away, proceed at once and have this labor performed, and all roots should be taken up and stored away before the slightest injury from frost befals them.

CORN STALKS.

As the grass crops have been short throughout a large breadth of our country, it behoves all prudent agriculturists to husband and economise their corn-stalks, as they may rest assured that before the grass next spring is in a condition to relieve them from the feeding of their stock, they will need their corn-stalks as food for their cattle. If the stalks are gathered from the field before their life-sustaining virtues are bleached out of them, and protected when brought into the barn, they will prove a valuable auxilliary resource in eking out the supply of food for the cattle. To render them acceptable and profitable they should be passed through the cutting machine, cut into inch and half inch pieces and then *cooked*. Thus prepared, if mixed with half the quantity of hay, fodder, shucks or straw, which should be also cut, they will be found to answer a good purpose and to sustain the stock well. The addition of a small quantity of corn or cob meal, or even cob meal, or bran, so much the better. A neighbor of ours in 1837 or 1838, we forget now which year, whose grass crop proved short, had mainly to rely upon his corn-stalks for the support of his dairy cows, consisting of twenty animals. He gathered his stalks as early as practicable, packed them away in barracks, and as wanted had them passed through the cutting machine, and then steamed—his steaming apparatus was simple and inexpensive, it consisted of two oblong boxes, with tops to them, into these he put the cut corn-stalks and pressed them down. Upon these he poured boiling water, which was heated in a large pot conveniently placed, he then closed down the tops and placed heavy stones upon them to keep as much steam in them as possible. In half an hour the box lids were raised up, and their contents mixed with about an equal quantity of cut hay, fodder tops or shucks, a little bran or meal was mixed in the mess, which was salted: a half bushel of the mixture made a mess for each cow, three times a day, and in this way he carried his milch cows through the winter and early spring in excellent condition.

CORN COBS—SELLING CORN.

As corn cob meal is really a good food for cattle when mixed with cut straw, fodder or hay, and when thus used operates as a great saving, we advise all farmers not to sell their corn on the cob, but to have it shelled, and sell the grain of the corn alone, reserving the cobs as food for their cattle. In view of the scarcity of the grass crop, it is at once the part of humanity as well as interest to economise every thing on a farm in the shape of cattle food.

MILCH COWS.

It is essential to the secretion of milk, that milch-cows should be comfortably housed through the winter months; their apartments should be well ventilated, moderately warm; their stalls should be well bedded and kept clean, while the animals themselves would be all the better of being cleaned down night and morning, as cleanliness of hide tends to the preservation of health, and whatever does that serves to keep the whole functions of the cow up to their proper work, and as a consequence, the organs which secrete the milk will perform their labors the more advantageously.

Milch-cows cannot be kept well to the pail without care and attention; they must be warmly, comfortably, and cleanly housed, as we have before premised: they must be fed three times a day, at regularly stated hours, for regularity in feeding is an essential point in wintering animals, and in none is it more imperiously necessary than with the milch-cow: her food should be succulent and nutritious: besides long provender, they should receive messes of slop, composed of chopt roots of some kind, cut straw, meal of some kind or bran, mixed with cut straw, fodder, or hay of some kind. The idea of expecting a milch-cow to give any considerable portion of milk in winter when fed upon straw alone, and that scantily doled out to her, is to say the least, a fanciful conceit—one that will never be realized. Milch-cows should be salted twice or thrice a week, and have access to a good warm, well protected yard in good mild weather.

YOUNG CATTLE.

All young cattle should have a yard to themselves, which should be provided with sheds facing the South, South-east, or East; the floors of which should be elevated somewhat above the level of the yard. The sheds and yard should generally be well protected from the North and West. The sheds should be bedded and kept clean, and the animals themselves would be all the better of a rubbing down, daily with a whisp of straw, or of a combing or currying. They should be fed *regularly* three times a day with long provender and with a moderate feed of grain of some kind, or a mixture of cob-meal, or bran and cut straw, fodder or hay once a day. If good size and form is aimed at, young cattle must be moderately fed with grain, and receive salt twice a week.

WORKING ANIMALS.

Every horse, mule, or ox who labors on the farm should be cared for with attention; he should be fed and watered thrice a day, and receive a portion of salt twice or thrice a week, say 2 oz. each time; he should have good bedding, and that kept clean; he should be curried and brushed, or whisped down, night and morning. The hind part of his stall should daily receive a dusting of plaster.

CARE OF SHEEP.

Sheep should have provided for them a warm dry shed protected from rains and drifts of snow; the bottom of which should be evenly covered with a few inches of rough materials to receive and absorb their liquid voidings, and this should be covered with straw, which should be repeatedly

added to keep them clean and dry. Once a week plaster should be spread over the floor. They should have boxes or troughs arranged around the shed, which should face the south, in which they should be fed. Independent of their feed boxes, they should have two or three others provided, in which Rock salt should be placed to enable them to salt themselves whenever they felt so inclined. They should be regularly watered. Their shed or sheds, for not more than fifty should be kept together, should open into a dry, well protected yard, or yards for exercise in good weather, which should also have a covering of rough materials to act as absorbents, over which, for purposes of health and the economising the nitrogenous portions of their manure, should be occasionally sprinkled with plaster.

APPLES.

Gather and remove your apples, by hand, to the barn, and if you feel so disposed, make your cider in time, and when made store it away.

GRANARIES AND CORN HOUSES.

These should be cleansed before you stow your grain therein.

DRAINING OF WET LANDS.

This is a favorable season for draining wet lands, and as the operation, if well performed, will add fifty per cent. to their productive capacities, will improve their texture and lessen the labor of working them; will improve the health of the place; will hasten their powers for maturing crops, besides improving the quality of the crops grown thereon, let us, therefore, conjure you to commence draining all such lands that you have in culture on your farm. While you will be certain to be largely benefitted yourself, it will stimulate your neighbors, similarly situated, to follow your good example.

GEARING.

Examine all your gearing, and have all needing it repaired and greased. Neats-foot oil is about the best to apply.

OILING MACHINERY.

The wearing out of machinery, is more to be ascribed to neglect in oiling, or the use of bad oil, than to any other cause. In winter, none but the best cold-pressed sperm oil should be used. In warm weather lard oil will answer.

WAGONS, CARTS, IMPLEMENTS AND TOOLS OF HUSBANDRY.

Have everything of this kind overhauled under your own personal inspection, and have all necessary repairs made. Have all not in use put away carefully under cover. If before having them put away you were to have a coat of cheap paint given them they would last much longer.

FIRE WOOD.

Be sure to have a full supply for a year of firewood cut and hauled into your wood yard before it becomes a labor of love to haul it from the woods.

FENCES.

As good strong fences make honest stock, and conduce to preserve harmony among neighbors, give to your entire line of fencing a thorough examination and have all necessary repairs made—and made speedily.

GATES AND BARS.

Apply yourself this winter, and have gates made for every field on your farm, whose access is now through bars.

ORCHARDS.

Give to your orchards the attention and care we recommended last month.

OUT HOUSES AND CELLARS

If these have not been recently cleansed, have them forthwith cleaned and white-washed.

Proposed Constitution of the Maryland State Agricultural Society.

The following is the new Constitution, proposed at the August meeting of the Executive Committee, to be recommended to the Society for its adoption at the annual meeting:

To promote the Agricultural interests of Maryland and the contiguous States, there has been established an Association with the following Constitution:

ARTICLE I.—This Association shall be styled "The Maryland State Agricultural Society."

ARTICLE II.—This Society shall consist of,—

1st.—Such persons as have subscribed to the Constitution, and paid to the Treasurer an initiation fee of $2.50—such persons however ceasing to be members on every first day of September, unless prior thereto the annual membership contribution of $1 shall have been paid.

2nd.—All persons entitled to membership in virtue of any existing compact or agreement of the Society.

3d.—Life members, who, by the payment of $10 on initiation, secure exemption from annual contribution.

4th.—Honorary members, exempt from contributions, who may be elected by the Society, but only in consideration of distinguished services to the cause of Agriculture. No persons except those enrolled under the above provisions, in strict accordance with their requirements, shall be entitled to participate in any of the proceedings of the Society, or to enjoy any of the privileges of membership.

ARTICLE III.—The Officers of this Society shall be a President, one Vice President for each city and county of Maryland, and for each adjacent State, or portions of a State, represented in the Society by ten or more members, a Corresponding Secretary, a General Secretary, a Treasurer, a Marshal, and five Curators, to be elected viva voce, or as may be otherwise ordered by a majority of the members, (not less than 30,) voting at each annual meeting; and the officers so elected shall hold office from the commencement of the next ensuing year, until their duly qualified successors shall be prepared to enter on the discharge of their duties.

ARTICLE IV.—The President, Ex-President, Corresponding Secretary, and five Vice Presidents, selected by the whole number of Vice Presidents, from among their own number, immediately after their election, shall constitute the Executive Committee, in which shall be vested all the executive power of the Society, together with entire control of its property, and the right to make, establish and fix, all needful rules, regulations, Exhibitions, meetings, contracts, and appointments, for the attainment of its legitimate object, and the advancement of its prosperity, subject nevertheless to the provisions of this Constitution, and the Charter of the Society.

The Executive Committee shall have power to fill for the remainder of the year, all vacancies in its own body, and among the constitutional offices of the Society, except the President, and shall meet on the first Tuesdays in March, June, September and December, and as much oftener as they may deem proper, or may be called together by the President, or any other three members.

A condensed report of the proceedings of the Executive Committee for the past year shall be rendered to the Society at each annual meeting thereof. Four of its members shall constitute a quorum for the transaction of business.

ARTICLE V.—The President shall exercise a general supervision over the affairs of the Society, and the proceedings of its officers. He shall, when present, preside at the meetings of the Society and of the Executive Committee; he may designate in writing for a specified term, any one of the Vice Presidents, as Acting President in his stead; and both President and Acting President shall have power to suspend any officer of the Society, and appoint a substitute until the next meeting of the Executive Committee, who may then confirm or reverse such action.

All subordinate officers, agents, and employees of the Society, shall be appointed by the President as Acting President, and shall receive such compensation as may be fixed by him with the approbation of the Executive Committee.

ARTICLE VI.—In the absence of the President and Acting President, any one of the Vice Presidents, according to vote, may be called to preside over the meetings of the Society or Executive Committee. And the Presiding officer, when desirous of participating in debate, or addressing the Society, which he shall not do from the Chair, may do so, by placing temporarily in his seat any Vice President present. In case of the vacancy of the office of President, the Vice Presidents of the Society, who may be convened for the purpose, by either the Corresponding or the General Secretary, upon not less than ten days notice in writing, shall select from among their own number a President, to act until the expiration of the year.

The Vice Presidents shall also be esteemed the special guardians and representatives of the interests of the Society, near their respective domicils, and wherever abroad they may find opportunity of acting to its advantage.

ARTICLE VII.—The Corresponding Secretary shall conduct the correspondence of the Society. The General Secretary shall have charge of the archives and records, and shall keep the journal of the Society, and of the Executive Committee, and roll of the duly qualified members of the Society; and discharge such other functions as may be committed to him by the President or the Executive Committee, to whose instructions he shall be subject.

ARTICLE VIII.—The Treasurer shall give bond, in such amount and with such security, as may be prescribed by the President, for the faithful discharge of his duties.

All the moneys and evidences of debt of the Society, shall be entrusted to his charge, and he alone in person, or by regularly authorised deputy, shall be entitled to receive and receipt for all dues and payments which may accrue to the Society.

He shall pay out the funds of the Society only upon orders of the President or Acting President, or of the Society, countersigned by the General Secretary; and he shall be responsible for the safe keeping and proper disbursements as above described, of all the funds of the Society.

He shall keep an office in the city of Baltimore, and shall render to the Executive Committee quarter yearly accounts of the receipts and disbursements, accompanied by sufficient vouchers.

ARTICLE IX.—The Marshal and Curators shall have custody of the grounds, tenements, chattles, and property generally, (other than funds, securities, records and papers,) of the Society, and shall discharge this duty, together with all such as may be assigned to them by the President, according to his direction.

ARTICLE X.—No Constitutional Officers of the Society, shall receive any compensation, except the General Secretary, Treasurer and Marshal, who shall have their respective stipends, and the periods when the same shall become due, established by the Executive Committee at its first meeting in each year.

ARTICLE XI.—The Stated Annual Meetings of this Society shall be held in the city of Baltimore, at such place, and on such day in October in each year, as shall be designated by the Executive Committee; but special meetings may be appointed at any other time or place, by the President, or any three members of the Executive Committee.

Twenty members of the Society shall constitute a quorum for the transaction of ordinary business. The year of the Society, as regards officers, memberships, &c., shall terminate on the first Tuesday of December in each year.

ARTICLE XII.—This Constitution may be altered at any annual meeting of the Society, by a vote of two-thirds of the duly qualified members present, provided that not less than 40 votes are cast, and that the amendments proposed shall have been submitted verbatim at a previous annual meeting of the Society, and published in the journal of its proceedings.

☞A communication from Richard W. Bryan, Esq., of Charles Co. Md. on the "five field system of farming," was received too late for this No. It will appear next month.

THE BALTIMORE MARKET.—Oct. 25.

Wheat, choice White, sold to-day at $2.15; good to prime, $2.05a2.12; ordinary to good, $1.90a2; Red, good to prime, $1.95a1.98; ordinary to good, $1.80a1.90.—Corn, 87a90c.; Yellow, 90c.—Oats, 37a41c.—Rye, Md. $1.05a1.08; Pa. and Ohio, $1.16a1.18.—Flour, firm under the late steamer's news; Howard st. $8.75; Ohio, $8.75—generally held at $8.87½; City Mills, held at $8.87½.—Cloverseed, $7.25a7.50. Timothy Seed, $3.50a3.75.—Whiskey, 39a40c.—Plaster, $3 per ton; ground do. $1.25a1.37 per bbl.—Naval Stores, Spirits Turpentine, 45a47c.—Tar, $2.25a250.—Pitch, $2.25a2.37. Common Rosin, $1.55a160.—Hay, baled, $22a25; loose, $20a 22.—Straw, Rye, $14a15; wheat do., $10a12.—Wool, unwashed, 18a21c., pulled, 23a28c.; tub washed, 28a31c.—Fleece Wool, common to quarter blood, 28a33c.; quarter to half blood, 33a38c.; half to three-fourths, 35a42½c.; ¾ to full blood, 40a43c.; and extra, 43a48c. Tobacco is without animation; frosted and inferior Maryland, at $4a4.50; sound common short, $5a5.50; brown, $7a10. There are no receipts of Ohio Tobacco, and the late accounts from that State, represent the crop to be much less in quantity than was anticipated earlier in the season. The quality will be a good average, but the article will be what is termed "light," in consequence of which, the weight of the hogsheads will be less than usual—many of them probably not over 600 pounds.

AN ESSAY

On the ANALYSIS OF SOILS, with a Formula for the same, as founded on the relations between Soils and Plants.

BY CHARLES BICKELL, PH. D.

(Continued from October No.)

FORMULA FOR MANUAL EXAMINATIONS WHICH WILL LEAD TO A CORRECT JUDGMENT OF THE DISTINCTIVE QUALITIES OF SPECIAL SOILS.—*Manner in which samples of soil must be taken for analysis—examination of the mechanical texture of the soil—determination of the quantity of Quartz-sand, and undecomposed fragments of rocks—of the quantity of Cement—of the character of the rocks—of the water retaining power of the Cement—of the physical state of the Cement after drying—of the absorbent powers of the Cement for gases, and moisture, &c.—Examination of the directly nourishing properties of the soil—determination of Phosphoric acid—of Sulphuric acid—of Chlorine—of Lime and Magnesia—of Silicic acid, Potash and Soda.*

We have tried in the preceding chapters to collectand exhibit general facts for a thorough *understanding* of the functions of soils, so far as they relate to the wants of plants; all that remains for this final chapter, is to give such a formula for manual examinations as will lead to a correct *judgment* of the quality of special soils. The method in which these examinations may be conducted, is distinctly dictated by our preceding considerations; we therefore have to act here in accordance with them; avoiding elaborate analyses, which, notwithstanding their troublesome performance, have shown themselves to be not of the greatest practical utility.

Before commencing the analysis of a soil, it is *first* necessary to observe that the sample was taken in the following manner:

With a clean spade a hole should be dug to the depth of the surface soil; and a slice of uniform thickness (about one inch) then be taken from the top to the bottom of the hole. This operation should be repeated in three or four different places on the *same kind* of soil; the different specimens thus obtained should then be mixed together, and about two lbs. of the mixture be put in a clean bag for analysis. Specimens of the subsoil should be taken in the same manner as those of the surface soil, special care being taken to prevent any mixture of the surface soil with it.

If the specimen of soil is not properly taken in the above manner, its analysis may prove nothing when done.

It is *secondly* necessary that the specimen is labelled with the name of the owner of the soil, and the State and county from which it was taken.

Thirdly and finally, should the specimen be accompanied by a note in which information is given, as to the location of the soil; its productiveness; the crops which were taken from, and the manures which were applied to it, &c., &c.

After noticing these preliminaries we proceed to the

EXAMINATION OF THE MECHANICAL TEXTURE OF THE SOIL.

For this purpose, about three ounces of the soil are to be placed in a Beaker Glass, and washed with small and successive portions of hot water. The mass well stirred, is to remain at rest for some time before the water is poured off, and a new portion added to it. This operation is to be continued until the wash-water runs off clear, thus effecting a perfect separation of the heavy particles of "quartz-sand and the fragments of undecomposed rocks" from the light mass of soils, to which we have applied the term "cement." The remaining particles, consisting of quartz-sand and undecomposed rocks are then to be dried in the air, and weighed, and the weight noticed in per cent. I.)

This weight deducted from the whole weight of the soil taken, leaves the quantity of cement it contained, which has also to be noticed and expressed in per cent. II)

The quartz-sand and rock particles are then submitted to an ocular examination with the aid of a microscope, III) for the purpose of determining the rocks, from the degradation of which the soil was formed; and have to be preserved for future comparison.

The wash-water from the preceding operation has to remain at rest, until all of the cement has settled, which was held by it in suspension. The clear water is then poured off, and the cement after being well shaken, collected upon a filter. As soon as the water has ceased to drop from the filter, any portion (about 200 grains) of the contents of the filter may be taken and weighed in a platina dish on a delicate chemical balance. It is then to be removed to a closed water-bath where it has to remain for about one hour and a half, after which time it is again weighed and its loss calculated in per cent., IV) which will express the water-retaining power of the cement.

Its physical state after drying must also be noticed, whether it presents a baked mass, divided by clefts and fissures, or a loose one easily falling to powder. V)

It is then to be placed in an exsiccator—a room which is kept perfectly dry by means of concentrated sulphuric acid—and there remain for about four hours, after which time it is again weighed, and the increase in weight also calculated in per cent., VI) which will express the absorbent power of the Cement for gases.

It may then be placed in the open air until it does not increase in weight any more, when it is again weighed, and the increase in weight calculated in per cent., VII) which will express the absorbent power of the cement for moisture.

The factors II, IV, V, VI, VII, to which must also be added the specific gravity of the cement, VIII) disclose all the peculiarities of the cement as far as they refer to its action as a constituent of soils, and if compared with the weight and character of the quartz-sand particles and their associates (undecomposed rocks,) as determined by I & III, will result in a perfect understanding of the physical state of the soil. These factors have to be noticed in a tabula arranged for the purpose; and each new analysis of soil, noticed in the form of these factors, will extend this tabula, and thus enlarge the knowledge of the chemist so far, that he may soon acquire the principles of a general and thoroughly practical classification of soils.

Though these factors give an entirely satisfactory account of the action of the different substances which constitute the bulk of soils, it is notwithstanding often desirable to know the exact quantity of humus which is present.

To determine the quantity of humus, about 150

grains of the soil are to be boiled for some time in dilute potash liquor, additions of water being made to it from time to time as evaporation takes place. By these means all of the humus is dissolved, forming a dark brown liquor, which is to be filtered from the insoluble residue, and treated with dilute hydrochloric acid, until it becomes slightly acid. The humus is then precipitated, and must be collected upon a weighed filter, washed, dried at 266° F., and weighed; the resulting weight is that of the humus of the soil minus the weight of the ashes which are left after burning it. The average quantity of ammonia which humus can produce is one-seventh of its weight, and can be recognized by its smell either when the humus is heated by itself, or still better when heated with soda lime.

EXAMINATION OF THE DIRECTLY NOURISHING PROPERTIES OF SOILS.

We have already explained that the directly nourishing properties of soils depend on the presence and respective quantities of phosphoric acid, sulphuric acid, chlorine, silicic acid (silica in its soluble modification,) lime, magnesia, potash and soda, which are diffused through the bulk of soils in form of alkaline, or earthy salts. All of them are more or less easily soluble in water, and therefore uniformly diffused through the soil.

For the purpose of extracting them from soils, chemists are very apt to treat soils with water, and to think that the result of analysis of the so procured extract would represent that quantity of nourishing substances in soils, which will benefit the plants for the present. This is however not the case; we cannot imitate all the influences which nature during a whole season exercises upon these substances, by treating them for some hours with cold or hot water in our laboratories. The water which falls to the earth is also quite another kind of water from that which the chemist uses; it not alone assumes power by its fall, it is also freshly impregnated with the constituents of the atmosphere: carbonic acid, oxygen and ammonia, substances which very much aid, either directly or indirectly, in dissolving the nourishing ingredients of soils. The water of which the chemist can dispose has lost already most of these substances, and, when boiled, even loses them entirely. Besides, we know, that the better the adaptation of a soil for the purpose of cultivation, so much the longer will it retain its nourishing ingredients, and proportionably resist their loss by the action of water. A really good soil may therefore, mutatis mutandis, yield less quantities of nourishing substances to water, than one of an inferior quality.

Water acts principally as an acid and most especially when impregnated with carbonic acid and oxygen, as is the case with rain-water. The best way to imitate nature when extracting from soils their nutrient ingredients, seems therefore to remedy the deficiencies of pure water by the addition of an acid, and this is the method which we have adopted.

DETERMINATION OF PHOSPHORIC ACID.

Of the different methods of the determination of Phosphoric Acid that by which Phosphoric Acid is detected by molybdate of ammonia, is distinguished, as the most advantageous for application to soils, furnishing indisputably the most exact results of all, and requiring besides little skill, and the least time.

As to the preparation of the molybdate of ammonia, it is most commonly made from the natural Sulphuret of molybdenum. This is to be pulverized, or on account of its toughness ground to powder, and then whilst being exposed to the air, heated and constantly stirred; Sulphurous acid will then escape, and molybdic acid be left behind. To prevent the melting, or the escaping of the latter, the heat must be moderate, most especially towards the end of the process. The residue is digested for some time with ammonia, which dissolves the molybdic acid, whilst undecomposed sulphuret of molybdenum, quartz and other substances remain. The filtrate evaporated, and if necessary, once more filtrated, then boiled and mixed, whilst yet hot, with strong ammonia will, by cooling, leave crystals of molybdate of ammonia.

A concentrated solution of these crystals in water, furnishes the above mentioned re-agent.

The effect of molybdate of ammonia on phosphoric acid and its salts, in a solution which has been acidulated by nitric acid, manifests itself, first, in the forming of a white precipitate of molybdic acid, which is re-dissolved, however, in the excess of the nitric acid present. The liquid then assumes a yellow color, and deposits a yellow precipitate of a crystalline structure, the formation of which is accelerated by heating.

This precipitate consists of about three per cent. of phosphoric acid, a very small quantity of ammonia, and, the rest, of molybdic acid, which are united to each other in a manner yet doubtful. It is easily soluble in ammonia; and also in an excess of phosphates; insoluble, however, in hydrochloric and nitric acids.

These conditions demonstrate at once, that the application of this method, is especially adapted to the tracing of small quantities of Phosphoric Acid as in soils. In this case no excess of phosphates, in which the formed precipitate could be dissolved, is to be feared, nor any danger in overlooking a precipitate, which consists almost entirely of substances used for precipitation, with only a small portion of the substance which is the object of search.

Direct experiments to test the sensibility of this re-agent were made, and the following results obtained:

By dissolving 5 grammes of crystallized phosphate of soda, which contain 1 gramme of Phosphoric Acid, in 25 grammes of water, a solution was obtained, which contained in all its parts 1-30 of its weight of Phosphoric Acid.

With this normal-liquid, different other solutions were then made, by diluting the former with water and a suitable quantity of nitric acid; the respective quantities of Phosphoric Acid in which were 1-300, 1-3000, 1-6000, 1-12000, 1-24000, 1-48000, 1-96000, 1-192000.

After molybdate of ammonia being added, and the whole heated, 1-48000 or 1-50000 of the dilutions created a distinctly visible precipitate. The 1-96000 dilution formed after a few days a little precipitate which did not appear at the 1-192000 dilution.

Experiments performed in the same mode, differing only with regard to the normal-liquid, which was in this instance diluted with a concentrated solution of a soil in nitric acid, (the soil did not contain any appreciable quantity of Phosphoric Acid) instead of acidulated water, led exactly

to the same results, viz : 1-48000 or 1-50000 dilution caused immediately a distinct precipitate; 1-96000 after a few days ; 1-192000 none at all.

Organic matter, iron, clay, lime, and all those substances, which are extracted by the aid of nitric acid from soils had exercised not the least influence on this reaction.

After these remarks, the last but most important point to be considered is finally the manner, in which the above mentioned results of observations can be applied for the recognition and the quantitative determination of Phosphoric Acid in soils, as distinctly as the farmer needs knowing it.

The solution of this point leaves now hardly any difficulties.

We know by analyses of Gregory, Way, Boussingault and Liebig that a wheat crop of 32 bushels at 62 lbs. contains of :

Grain 1,984 lbs.	containing	Phos.	Acid,	19.0 lbs.
Straw 3,360 lbs.	"	"	"	5.4 lbs.
Chaff 400 lbs.	"	"	"	2.1 lbs.

Total amount of Phosphoric Acid 26.5 lbs.

If we now take a crop of 32 bushels at 62 lbs. for an average crop, which a wheat soil ought to produce, and to which any wheat soil can be improved, then it is necessary as above mentioned, that it must contain 26.5, or we will say 30 lbs. of Phosphoric Acid, if it shall be able to produce the above crop.

The weight of an average acre of soil, one foot deep, is 3000 tons, according to the mean specific gravity of 16 varieties of soil, dried in the air, which was 2.44, as ascertained by Dr. Krocker.

These two statements show us at once the way in which soils ought to be treated for detecting the presence, and at the same time the approximate quantity of Phosphoric Acid in them.

If 3000 tons, or 6,000,000 lbs. of soil, (one acre) ought to contain 30 lbs. of Phosphoric Acid to produce a fair crop of wheat, then every part of this mass ought to contain 1-200.000 of Phosphoric Acid. Or, if we dissolve the Phosphoric Acid in a certain quantity of this mass by a solvent of equal weight, the solution obtained will also contain 1-200.000 of Phosphoric Acid ; or by evaporating the same to 1-4, a solution will be obtained which contains 1-50.000 of Phosphoric Acid, an amount which can be detected by molybdate of ammonia, as above stated.

For the analysis of soils, the most convenient quantity to be taken is about 3-4 of a pound, which is to be treated with the same quantity of water, acidulated with nitric acid, and then heated in a water-bath for about an hour.

For the purpose of testing a soil for its sufficiency or deficiency in Phosphoric Acid, a certain portion of the filtered solution of the soil is to be evaporated to one-fourth (an excess of Nitric Acid being present) and then tested with Molybdate of Ammonia.

If a visible precipitation takes place, then 30 lbs. of Phosphoric Acid at least exist in the examined soil ; 60 lbs. of Phosphoric Acid if evaporated to one-half ; 90 lbs of Phosphoric Acid if evaporated to three quarters; 120 lbs. if not at all evaporated, &c.

Determination of Sulphuric Acid.

For the determination of Sulphuric Acid we can apply a still finer and more sensible re-agent than even for that of Phosphoric Acid. Experiments which were made on this subject resulted in the observation, that in a solution of sulphate of soda which contained but 1-100.000 of its weight of sulphuric acid, a drop of a concentrated solution of Nitrate of Baryta still produced a precipitate of sulphate of Baryta, which by heating quickly settled to the bottom in the form of plainly visible white grains, insoluble in acids, and not altered at all by the presence of organic matter, or such others as may be extracted from the soil by acids.

We also know by analyses of Boussingault and of Fresenius, that a potato crop of 10 tons contains

Tuber 10 tons,	containing	of	Sulph.	Acid,	30 lbs.
Top 2	"	"	"	"	"	10 lbs.

Total amount of Sulphuric Acid 40 lbs.

If we now take a crop of 10 tons as an average crop per acre, then it is necessary that the soil contains at least 40 lbs. of sulphuric acid (equal to one bushel of plaster of Paris,) if it shall be able to produce the above crop.

We have farther to remember that the average weight of one acre of soil, one foot deep, is 3000 tons = 6,000,000 lbs.

6,000,000 lbs. of soil ought therefore to contain 40 lbs. of sulphuric acid to produce the average crop of potato, and consequently every part of this mass 1-150.000 of its weight of sulphuric acid.

Or, if we dissolve the sulphuric acid in a certain quantity of the above mass, by a solvent of equal weight, the solution obtained will also contain 1-150.000 of sulphuric acid; or by evaporating from it one-third, a solution will be obtained which contains 1-100.000 of sulphuric acid, an amount which can be detected by Nitrate of Baryta, as above stated.

For the purpose of testing a soil for its sufficiency or deficiency in sulphuric acid, it is therefore only necessary to take a certain portion of the prepared solution of the soil, to evaporate from it one-third, and then to test with Nitrate of Baryta. If no precipitate occurs after heating the liquid, it is a proof that the soil is deficient in sulphuric acid.

Determination of Chlorine.

For the detection of chlorides, we are also favored with a re-agent which distinguishes itself by its sensibility. Experiments which were made to try its sensibility, have resulted in the observation that in a solution of Chloride of Sodium which contained but 1-100.000 of its weight of Chlorine, a drop of a concentrated solution of nitrate of silver, still produced a precipitate of chloride of silver, which by heating and stirring quickly settled to the bottom, in the form of plainly visible white flakes, which after some time, when exposed to the light, become blackened ; they are easily soluble in ammonia, but not in nitric acid. It could not be found that organic matter as they exist in solutions of soils had any effect on this reaction.

We also know by the analysis of Sprenger, that a lucerne crop of 8.5 tons contains of :

Soiling 6.5 tons,	containing	of	Chlorine,	13 lbs.
Hay 2	"	"	"	"	"	14 lbs.

Total amount of Chlorine 27 lbs.

If we take this as an average crop per acre then according to the preceding, 27 lbs., or we will say 30 lbs. of Chlorine (equal to about ¾ bushel of common salt) must be contained in 6,000,000 lbs. of soil (one acre) to produce the average crop of lucerne, and consequently every part of the soil has to contain 1-200.000 of its weight of Chlorine ; or,

if we dissolve the Chlorine in a certain quantity of this soil by a solvent of equal weight, the solution will also contain 1-200.000 of Chlorine, and by evaporating from it one-half, a solution will be obtained which contains 1-100.000 of Chlorine, an amount which can be detected by nitrate of silver, as above stated.

For the purpose of testing a soil for its sufficiency or deficiency in Chlorine, it is therefore only necessary to take a certain portion of the prepare solution of the soil; to evaporate from it one-half, and to test with nitrate of silver. If no precipitate occurs after heating and stirring the mass, it is a proof for the deficiency of the soil in Chlorine.

DETERMINATION OF LIME AND MAGNESIA.

Both Lime and Magnesia exercise a double action as constituents of soils; on one side they present themselves as fundamental ingredients of soils, participating in the formation of the Cement, and as such, their sufficiency or deficiency in soils is expressed by the condition of the Cement; on the other side they serve as directly nourishing substances to plants, and only to this extent can they be subject to our discussion in this place. Experience teaches us in this respect, that it would be difficult to find out a cultivated soil, which would show itself so deficient in Lime and Magnesia, that it could not supply that portion of them which the plants require as nutriment. For this reason it cannot be of any practical use to determine the quantities of Lime and Magnesia which may be extracted from soils; it is however a matter of importance to have an idea of the mutual proportion of their quantities; and for this purpose the following treatment may perfectly answer:

Take two equal parts of the original solution of the soil (about a quarter of an ounce for each) and add to the one an equal volume of alcohol and a few drops of sulphuric acid; the whole quantity of lime contained in it will then be precipitated as sulphate of Lime;—to the other add an excess of ammonia, Sal-Ammonia and Bin-Oxalate of Potash, filter from the precipitate, and add to the liquid Phosphate of Soda; the whole quantity of Magnesia will then be precipitated as Phosphate of Ammonia and Magnesia.

Both precipitates may be compared with each other as to their quantity; they both contain about one-third of the weight of their respective contents of Lime and Magnesia.

DETERMINATION OF SOLUBLE SILICIC ACID, AND ALKALIES.

The supply of Soluble Silicic Acid and Alkalies to soils is due to the quantity of clay and humus they contain, as well as to such fragments of undecomposed rocks as contain Silicic Acid, Potash and Soda as constituents, and which will become liberated and dissolved in consequence of the degradation of these rocks. An investigation of the condition of soils concerning these matters makes a part of the examination of the mechanical texture of the soil; the question which remains here to be solved, is: what quantities of these substances exist in the soil in soluble form, ready to meet the wants of plants.

For this purpose we must go into a more elaborate examination of the soil as has been done before; the peculiarities in the chemical character of the alkalies which have been felt disturbing many practical branches of our science, also prevent us here from giving a readily practical method for their determination, for which we have still to hope the best from future.

The following method seems to be the shortest and is correct:

Take about 5 grammes (75 grains) of the soil under examination, and boil the mass for some time with dilute Hydrochloric acid, whilst constantly replacing the evaporating water; filter then from the remaining residue and evaporate the liquid in a platina dish to dryness. Moisten the dry mass with a few drops of concentrated Hydrochloric acid, and after some time add water to it. What remains insoluble is that part of silicic acid which existed in the soil in its soluble modification; it must be filtered and weighed. To the solution add oxalic acid, and then an excess of ammonia and phosphate of ammonia; filter from the formed precipitate, evaporate the filtrate to about one-half, and whilst yet hot, add to it first-acetate of lead, and then carbonate of ammonia, and ammonia. To the filtrate add a little sal-ammonia, evaporate, and apply finally a gentle heat to expel the ammoniacal salts. The remaining consists of Chloride of potasium and Chloride of sodium, which have to be weighed and separated by Chloride of Platinum in the common way. Potash is among these substances indisputably the most valuable, and is always accompanied by Soluble Silicic Acid. To soda we cannot attribute equally valuable nourishing properties, since it has been found, that it makes a constituent of plants the quantity of which contained in them, diminishes in proportion to their cultivation. It always indicates its presence in soils by the presence of Chlorine, and is also supplied in its combination with Chlorine. The result of analyses made by Boussingault and Fresenius may finally give an idea how much of Potash, Soda and Silicic Acid is removed from one acre by a potato crop:

	Potash.	Soda.	Silicic Acid
Tuber 10 tons, contain of	110	7	11 lbs.
Top 2 " " "	4	2	60 lbs.
Total amount of	114	9	71 lbs.

From the American Veterinary Journal.

PRINCIPLES OF BREEDING.

BEAUTY—SYMMETRICAL PROPORTIONS—PHYSIOLOGICAL CONSIDERATIONS, &c.

It is a law of the animal economy that peculiarities in "form or external conformation" shall be transmitted; although under certain circumstances the reverse may be expected. For example, we liberate an animal from domestication, and its influences, which are known to operate very sensibly on its organization, and habits; that individual species, gradually loses its "acquired" form and habits, and ultimately returns to the original type; then we make an improvement in the wrong direction, supposing, however, our pecuniary interests are alone involved.

On the other hand, take a wild animal; bring him under the influences of domestication and he gradually loses all his distinctive characteristics of size, form and instinct, and in popular language becomes a new creature; improved or not, as the case may be, under the direction of his lord and master. So that the inferior orders of creation are really the creatures of circumstances—the re-

sult of man's experience, or non-experience. These are general propositions which "precede *beauty* and *symmetry*."

BEAUTY AND SYMMETRY.

If we examine into the methods pursued by some of the most successful raisers of live stock, we shall see that they paid particular attention to the selection of "well-formed, beautiful animals." They very naturally supposed that external conformation was transmissable: that if they happened to obtain a good calf or foal, from inferior, diseased, or mal-formed parents, it was purely accidental and out of the ordinary course of nature. In selecting beautiful animals they naturally excluded those of narrow chest; which peculiarity is indicative of predisposition to pulmonary affections, and founder, (the latter term signifying a worthless or ruined condition, which in the eye of the law, renders them actually unsound,) because they have that about them which may impair their future usefulness; hence for more reasons than one, such are unfit for breeding purposes, unless however, the morbid phenomena be neutralized by blood, in one of the parents, of a superior order; free from taint, as it appears in the other.

In selecting beautiful animals we of course reject those having local affections, such as spavin, ringbone and various other exostotic affections, which, unless the right method be adopted, will re-appear either directly or indirectly in future progeny. Some of our modern "breeders," however, appear to disregard past experience, and if they happen to be in possession of an old broken down mare, unable, from fault or disease, to perform ordinary duty, they speculate in another direction; the reproductive organs are called into requisition. About this time somebody advertises a great prancing steed with a popular name; his fame certified to, by some of the oracles of the turf. The speculator expects a smart colt that will take the shine out of any of his neghbor's stock. But alas for his calculations! The promising specimen of horse flesh inherits its parents infirmities; very few good qualities; and ultimately becomes a living monument of his owner's folly.

There is no beauty in spavin nor ringbone; no grace in motions of a lame horse. "Beauty and symmetry" are defunct in the rawboned, ill conditioned animal—the mere apology of a horse. The muscular system of a horse may be ever so well developed, but should his knees be sprung, his spine unnaturally curved, he cannot be considered beautiful. We may improve the appearance of an ill-formed horse by artificial means and costly adornments. All the beauty manufactured after this fashion is delusive. Whereas, the beauty to be sought for, in selecting stock animals, must originate within the living citadel—be the work of nature and none of art.

It is a fact well known to many, that animals of faultless form—having symmetrical proportions, are exempt from many diseases which are the heritage of faulty and inferior animals, and insurance companies take advantage of this knowledge and insure the former at less rates than the latter. As an illustration of the above we may be permitted to remark that the "Arabian Courser," English "blood horse," American "Black Hawk," and a pure "Devon" cow,—all remarkable for good points, beauty and endurance,—are exempt from many of the common and unnecessary diseases. Beauty and symmetrical proportions contribute to health; because there is a certain degree of affinity between external and internal organs and functions. For example, a fine exterior, good depth of chest, well proportioned muscles and graceful limbs are generally co-existent with "good wind and bottom;" and the subjects of course possess active respiratory organs, a finely balanced circulation, and a digestive apparatus that can digest every article in the shape of fodder. In selecting the beautiful, we therefore obtain material for perpetuating health, long life and valuable offspring.

One of Bakewell's "great secrets" was "breed from the beautiful." We allude to him because he was the most successful "breeder" that England ever boasted of. At the onset, he paid great attention to "beauty of form," having developed a fine exterior he engrafted on it the useful. He was well aware that beauty and utility were not always combined, but being in possession of the former, he could produce the latter to "order;" and he accomplished his object in the following manner. He required cows that would yield a large quantity of milk; consequently he selected those dams that had long been celebrated for their excellent milking qualities, and from among such he chose the very best female of the family, and united her with a beautiful male. Having in the production of offspring through the above union, accomplished his object, he then paid less attention to beauty and more to the milking qualities, so as to render the latter permanent in the breed; still in all his experiments he rejected uncouth and defective animals.

We are aware, however, that the evils of domestication are operative to a certain extent on all animals; still we contend that the "well bred" animal can resist the insidious encroachments of disease and survive longer under its depressing influence than "ill" favored creatures. Illustrations are not wanting to prove the correctness of Bakewell's theory; therefore we advise our readers to follow the example of one who may justly be styled the "Napoleon of Breeders."

IN-AND-IN BREEDING—ITS ADVANTAGES, &c.

The next principle to be considered under its caption is breeding "in-and-in." The question may be asked "What is breeding in-and-in?" We answer, it implies consanguinity,—breeding from animals of the same "blood" or related by blood—propagating a close degree of relationship.

Some persons have an idea that this system is pernicious and leads to degeneracy and premature decay. But that is a matter of argument and does, as we shall attempt to prove, depend on the skill of the 'breeder,' and his ability to make wise selections. The human race—the sons and daughters of "Adam and Eve,"—afford a stupendous illustration of the practicability of "in-and-in breeding." The millions terrestrial, all originated (so the good book informs us) from our "common" parents, and consequently, we are all "blood" relations. And this fact goes to show that "in-and-in" breeding is in accordance with the laws of physiology, and does not conflict with the intentions of "Him who doth all things well." It is a part of the great scheme of creation—a physiological law—the problem of life; to solve which, God has endowed us with reason—"God-like reason"—the exercise of which puts us in possession of the fruit of the "tree of knowledge;" the non-exercise of the same, furnishes us with forbidden fruit.

Ill assorted marriages—"consumption, mateing with consumption," and scrofula with scrofula, seek an introduction to an early grave. The same is true of animals; bad selections thwart the intentions of the Creator; mar his handiwork: and if a friendly epizootic sweeps them from the face of the earth, it is more of a blessing than a curse.

From the great human family we select a "branch," (to illustrate this principle,) and we choose to refer to the Jews: so long as they are such in faith and practice—marrying their own kindred—they are a living illustration of the above principle. Have they degenerated? No. The distinctive characteristics of the race are just as remarkable as they ever were; the vicious and defective find an early grave, the "race" remain pure.

Now as regards horses, the same is true; they all had a common origin. The different varieties that now existare the work of time, circumstances, and the art of man. The famous horses mentioned by Mahomet in the "Koran," resulted from "in-and-in" breeding; they have existed and multiplied for three thousand years without the slightest intermixture of foreign blood, and from the time of "Solomon" up to the present day their pedigree has been watched and chronicled with great care, so that no doubt exists as regards their consanguinity. Their fine form, splendid action, endurance, spirit, speed and docility, can only be retained by preserving the race pure, and this is an argument in favor of "in-and-in" breeding.

No breed can be preserved pure unless the in-and-in system be pursued. The Suffolk pig for example; so long as we put "Suffolk to Suffolk" we get "pure" Suffolk, and if the proper selections have been made "good Suffolks" are the result; but deviate from direct lineage, and the breed degenerates, for better or worse, as the case may be, and they lose their permanency of type, and cease to become pure blood:—

"From the brave descend the brave."

The Suffolks in this country are notorious for a cutaneous disease simulating scrofula; and many suppose that this arises in consequence of the "in-and-in" system of breeding; this we think is an error. It results from the evils of domestication and our want of knowledge in making proper selections. There often is one or more animals in a litter, incapacitated by fault, defect, debility, to perpetuate the stamina and remarkable points of the breed, these are to be rejected. If we fail to do so the next generation, or the next to that, furnish more convincing proof of error; which we contend exists in making "bad" selections; and not in the above system.

Turn for a moment to the history of the French Merino and we shall find that "Victor Gilbert"—a name familiar to America's most successful sheep raisers—practiced no other than the "in-and-in" system of breeding. A lot of Merinos were sent in 1786, by the Queen of Spain, to the King of France: the latter in order to benefit the agricultural community sent half of them to "Rambouillet," and the other half to "Croissy." The climate happened to suit them and they were considered superior to the existing breeds in France. In the year 1800, Victor Gilbert bought at Croissy a four year old ram and eight ewes. He bred from those animals during a period of ten years; occasionally, however, "renewing the stock," as he termed it, by purchasing annually from two to four sheep. In 1821, he purchased some of the Rambouillet stock, and asserts that "from a union of the same he obtained great advantages." Now the reader will perceive that here was an alliance of blood; the two flocks were of the same lineal descent—belonged to the same "family," and of course the system of "breeding" was on the "in-and-in" principle.

Now as regards "French Merinos" obtained from the above source, and imported into this country, we have only to refer the reader to "Taintor, of Hartford, DeForrest, of New York, Sanford, of Vermont, Parker and Howard, of Ohio," and many others who are ready and willing, we presume, to testify, as regards the prosperity of the above breed in this country—the result of "in-and-in" breeding." S. W. Jewett, of Vermont has purchased up to the present time, over three hundred bucks and ewes, the offspring of the "Croissy and Rambouillet" breed, and this is proof positive of the corectness of our theory. Now as regards the "advantages of in-and-in breeding," what are they?

When Victor Gilbert purchased the first ram, he carried but nine pounds of wool; he finally realized 24 pounds from the rams, and from the ewes, eighteen pounds; a tangible illustration of the advantages. A very fine French Merino originating from the above source was very recently exhibited at a sheep shearing in Wisconsin; the animal weighed 325 lbs. and carried 40 lbs. of wool. Now the originals as we have already shown carried but "nine pounds;" so that the standard, as regards a particular quality has been raised and that is what we understand by the "improvement."

Therefore we contend that great advantages are derived from preserving the breed pure and in making proper selections. We have been very much pleased in perusing some remarks made by Sanford Howard, at the State House last winter, and published in the New England Farmer, and as they happen to have a direct bearing on our subject we shall re-present them to the reader. "What is breeding in-and-in? While some apply the term only to animals distantly related, he conceived the only true idea of the matter to be, that, it applied to creatures of the same blood. The consequences of breeding in-and-in, he believed might be either good, or bad, and depended wholly on the skill of the breeder. As proof that breeding in-and-in is not contrary to nature he referred to birds, the buffaloe, &c., in a wild state. It is known that they breed in-and-in constantly, and yet no deterioration takes place. He had known geese to be propagated in this way for forty years and not the slightest depreciation in size, quality or feather was visible in them. Still cases could be cited where breeding in-and-in had produced bad results; * yet these might be attributed to imperfections in the parent stock. It is only necessary to select perfect specimens."

* The reader will perceive that the theory of "breeding in-and-in" is not compromised. "Bad results" are the effects of ignorance, as regards the conditions of life.

☞ We acknowledge the receipt of several fine specimens of Apples, one lot from Mr. Woodside, of Howard Co.,—Newtown Pippins, weighing a pound each—the others from Mr. Zollickoffer, of Carroll Co.—a fall apple of fine size, appearance and delightful flavor.

From the Pendleton S. C. Farmer and Planter.

COL. WILLIAMS' CASHMERE GOATS.

DEAR EDITOR AND READERS :—We are just home from a short trip into the edge of Laurens, to see what our neighbors over the way were striking at. We jotted down a few of our notions, as we have in our constitution some inklings of "*pro bono publico*," (which means public good.) By the way of introducing these things before you and the readers, in our own way, we will tell you what we saw and what we think of the things seen.

We paid a visit to our worthy friend, Colonel John D. Williams, by whom we were hospitably received and kindly shown everything about the homestead and farm, stock, &c. We learned something by the survey of the various buildings that form an interesting and well arranged group—such as stables, cow-houses, cattle-shelters, and all the appurtenances of a farmer's home. A well cultivated kitchen garden on a scale that suited our notions of plentiful culinary supply, spread out its ample area on one side of the house. Around this we noticed the cuttings of the Osage Orange were thickly planted, and we were much surprised and delighted to see a majority of them showing life. This experiment, if successful, will be "glory enough" for any one man, and small as it may appear to the non-calculating mind, the success of this experiment may have vast modifying influences on the future of our country. The forest is fast melting away, and a fire may ere long be thought a luxury even in this not far back forest-land, and the want of timber for fences must be abandoned. We saw little of the field operations of the Colonel's farm, but fairly conclude there was harmony extended to all the business of the plantation and farms.

We will next introduce the reader to an experiment now being carried out by Col. Williams, in the way of Goats. Yes, reader, Goats! This, like all other innovations on the practices of our *daddies*, is looked upon with the slant-eye of skepticism, by the non-progressive stand-still masses. But we say to such, what improvement of the inventive genius of man has been met in the same way, and better wait a bit before you pass judgment. The Colonel is one of the ultilitarian, go-ahead, Saxon race, with a sort of oaken will that resists impressions from the sneers and remarks of the outsiders; thus constituted by nature, he is fitted to brave all petty annoyances that often check progress in minds differently constituted. Now, reader, do you know that the drapery that covers the well formed bust of that lovely woman, was but yesterday the natural dress of a Goat. Yes, the peelage of a despised Goat, worked into that splendid shawl, that cost its beautiful wearer upwards of a thousand dollars!

It is to produce this wool, and constitute it a staple of our country, that Colonel Williams is now directing his care, and spending his time and some money; and we think should he be spared with health and strength, success will crown his efforts, and his name will be remembered as a benefactor of his fellow-man.

It is with pleasure we look upon all these onward movements, and from our observation, we are satisfied the experiment will fully meet the end for which it is now being carried on. We will now inform you, Mr. Editor and readers, of the present condition of the experiment. The Colonel has about fifty females of the common Goat, with several females resulting from the cross with the full blooded male Cashmere Goat. These are now bringing kids of three-fourth Cashmere blood. One of these kids we examined closely, it was about three weeks old; wool was fine, thick, and about one inch and a quarter in length; the general appearance approached closely the Cashmere in every particular; the ears longer, broader, and flopped down, as we call it, similarly to the Cashmere. Farther, this kid had receded from the common Goat, its grandmother, and in every way resembled the Cashmere type. This is the main point in the experiment. The entire disappearance of the common Goat, and the permanent establishment of the Cashmere. The in and in plan is of necessity, from the fact of the experimentor having but one male of the full Cashmere. Had the Colonel other males, we should feel well satisfind of the result; but with all this we are sanguine of success. If Dr. Bachman is right where he claims a common origin for the Cashmere and the common Goat, that "one is but a variety of the other" by the intervention of man and other external agencies, the thing is entirely possible and even more than probable. If the Goats are varieties, and not specifically different, there certainly appears to us no difficulty in the matter. Should they be specifically different, we know too little yet of the economy of animal life, to pronounce with any certainty. Observation and patient experiment is the only certain test of these things, and this praiseworthy work is what our friend is at, and we heartly wish him success. What we are pleased to call domestic animals are much talked about, but very little understood. All is in the deep obscure of the remote past as to their origin. We know that animals and plants have been vastly modified as regards size and color; but this we think sums up man's influences over nature's works. In this great experiment, there is one prominent promise of success under the laws of nature, which is, that the weak are always lost under the influences of the strong. The Cashmere Goat, is physically a much stronger animal than the common Goat, and we may expect this law to operate as well in this as in all other of animal being. This law we think will aid the Colonel in his experiment.

We next took a look at the Col's. improved cattle of the Durham breed. We need say but little about them, as your readers are acquainted with them better than we are; to our judgment they are fine, and the difference so perceptible that we felt ashamed of our own scrub-stock. The Colonel with liberality that was unmerited and unexpected on our part, presented us with a fine bull calf, for which we would thus express our thanks. It awakened in us a new feeling about this kind of stock, which is everywhere neglected over the broad area of the cotton-planting States. To do better, is "better late than never," and we shall make a beginning at improvement. The much neglected docile cow is one of the greatest blessings bestowed on poor, ungrateful man, and in the neglect of caring for them, we evince to the Donor a want of thankfulness for his gifts.

We saw a part of the Colonel's flock of sheep; mostly we believe of the French Merino variety. They were in fine order, particularly for the cold dry season we are yet passing through. Their wool has just been taken off; one fleece from a year old buck, weighed eleven pounds; one from

a ewe with her first lamb, weighed eight pounds. The Colonel told us one of his ewes yielded a fleece of ten and a half pounds. Say, readers, if too great a plea for these innocent and important animals is asked in a dog-law? We think not. We saw also a couple of Suffolk hogs. We can't say much about them. They were pretty, and we think will do finely for a pet operation; but of this we know nothing; we can't condemn anything without a good reason. We dislike all protests that can be backed by no stronger reason than that very ready and unmeaning, "it won't do because it wont do." So we shall pass over the Suffolks, and leave them to work their way on their own merits.

From what we have seen of Laurens District, we are disposed to think that her farmers are beginning to feel the necessity of a reform in their business. We think some influence is at work, that will tell of better things. A few such men as the Williams', Davis,' &c., will leave the "foot-prints" of their doings as foci of improvement. Abbeville must arouse to the work if she would save herself from a laggard position. Laurens has an Agricultural Society, of what strength we know not; but from the report of some of their committees, they are awake to their duty, and the wants of the farmers as to the system of education suitable for their sons. There is one thing certain, before a man can do anything well, he must know how to do it. Knowledge is not born with us; it must result from immediate application of the powers of the mind, or be communicated to us by oral or written signs of ideas. Isolated efforts like that of our friend, will do much. He is rendering a great public service, and deserves the notice of his fellow-countrymen.

Wisely and patiently conducted experiments are the surest to remove prejudice and test the value of every earthly interest. Our people as yet appear to be averse to any co-operative efforts for the improvement of agriculture and its adjuncts, and individual effort is left to struggle for the elevation of the major pursuits of life. The few men who are engaged in these experiments, are often made the butt of the thoughtless, and their motives ascribed to the love of money, or a display of a low and paltry vanity. Excuse the length of this article as we think it of some importance.

ABBEVILLE.

Chinquepin Ridge, May 12, 1855.

FRUITS OF MARYLAND.

Statement of Samuel Feast, of Baltimore, Baltimore County, Maryland, as reported to the American Pomological Society, at their annual meeting, held at the city of Boston, in September, 1854.

The climate of Maryland often proves very unfavorable to the cultivation of choice fruit, being located, as it were, between two extremes. A few warm days, as we frequently have during the winter and early Spring, start the sap of the trees so much that the buds become so far developed as to be easily destroyed by a slight frost.

I have paid some slight attention to the seasons here for thirty-eight years, and have never experienced a more variable winter than this last one has been. We have never had any extreme cold, but changeable. In the latter part of November and first week of December, we had very warm weather; the peach buds developed so much that I was apprehensive they would all be destroyed in the winter. I discovered that a great portion was injured. The latter part of February and first two weeks in March were warm. Vegetation was ready to break forth. Apricots were in full bloom. Some few peaches, pears and nectarines, were open. It commenced blowing from the north-west, and continued so for ten or twelve days, the atmosphere at the time dry and frosty; it cut everything that was opposed to it. Some of the early blooming varieties of pears, such as "Buerre Rance, "Doyenne d'Alencon, "Doyenne Blanc," "Doyenne Gris," "Easter Buerre," "Maria Louise," "Triomphe de Jodoigne," and several others, were entirely destroyed; likewise the branches of several of the trees were so much injured, that I had to prune them severely. The last season's wood appeared, in many cases, to have passed through fire. This, I suppose, would be called frozen sap. Some of the varieties of the peach I found to be nearly destroyed, particularly the Crawford, Late Melocoton. The peach, nectarines, many of the plums, damsons, and pears, are at present in full bloom, (April 16.) The last two days have been very disagreeable, with rain and cold winds. At sunset, last night, it commenced freezing, with rain, sleet, hail, &c.; this morning, the ground is well coated over with snow; the trees, branches, young green leaves, and flowers, are covered over with icicles; it is also snowing, and the wind blowing almost a gale from the north. I am thus particular, as I want to ascertain what degree of cold the fruit trees will bear when in bloom, and when charged with moisture. It continued snowing all day until six o'clock in the morning of the 17th. That night there was a very hard frost; the next morning everything was locked up as in mid-winter, and we could not enter the ground with a spade. The apples were not in bloom, notwithstanding the greater part were destroyed. Peaches, plums, nectarines, gooseberries, currants, were all gone. The flowers and young pears remained on the trees, and appeared not to be injured; but as they began to swell, they became deformed and crooked in the foot stalk, and finally dropped from the tree. This was one of the most elevated and exposed locations; besides, there had never been known a failure of the fruit crop on the place before.

The following remarks are confined to the varieties in each class which have proved their worth and adaptation to the soil and climate of Maryland. Many of the varieties of the apple and pear, inserted in the catalogues of fruit, as winter fruit, ripen here in early autumn, when peaches are generally plentiful, which makes other fruit of little or no value.

The soil of Maryland, like most other portions of the country, varies in its formations; but many sections are well adapted to the production of fruit of every description.

The shores of the Chesapeake Bay, and its various inlets give a large surface of country.—These lands being sandy and alluvial, besides being generally of a level surface, together with a water communication, induces the fruit growers to select them in preference to more elevated regions, particularly for the strawberry and peach. The life of the peach tree is but of short duration on these soils; the orchardist calculating but on three or four crops, before the fruit becomes small, bitter and worthless. The best apple or-

chards are found on the elevated and dry ground, where the subsoil is of an open and porous nature, composed of mica, hornblende, or rotten rock, slate, &c. The trees in these sections attain a large size, and the fruit arrives to a greater perfection on such soils, than when planted on stiff, wet clays.

The climate of Maryland equals that of any portion of the Union, for ripening fruit, which can be brought to as great perfection, provided proper knowledge and care be made use of in the selection of proper varieties. Unfortunately for us, the landed proprietors are fond of things far-fetched, many of them thinking they can be better supplied from the North than at home.

On passing through one of the best orchards in the first of this month, there was not one tree in ten with fruit on it. Had the owner consulted some man of experience as to varieties suitable to this section, instead of sending abroad for his trees, the present worth of his orchard would have been ten-fold. I never was more convinced of this fact than when passing through this orchard, as no expense had been spared in cultivation; the ground had been continually under the plough since the trees were planted, ten years ago, and the soil the best adapted for fruit culture in the State, is composed of a sort of brown rotten stone, which dissolves with the winter frost into a fine friable loam, mixed with white flint and a bluish green-stone. This orchard is located on the southern end of an irregular ridge of land, extending round the city of Baltimore from five to seven miles. On land of this description, the roots penetrate to a great depth out of the way of droughts, such as we frequently have at this season of the year.

The peach crop has been an entire failure this year, so much so, that the Pennsylvanians consider it to their interest to send to the Baltimore market. The cause of the failure was owing to the cold spell on the 17th of April.

We have one great drawback here to fruit culture, which is becoming more formidable every year—the various insects that sting the fruit. I was in hopes that, after the cold spell we had, there would be no fruit left for them to carry on their depredations; but, unluckily, we had sufficient for their purpose, and they have taken advantage of it. These depredators can never be exterminated, so long as the present course of neglectful practice is continued by the owners of orchards through the State. The greater part of the fruit which ripens at a season when fruit is of little or no value, is suffered to decay under the trees, instead of being fed to stock. In every part of the State large orchards are visible, this fruit forms a nursery for their increase. So destructive have they become, that, last season, 1853, the crop of apples was plentiful, but many owners of orchards were scarcely able to pick up a barrel of sound fruit in the fall.

The plum, apricot and nectarine, have received but little attention, owing to the curculio. In the vicinity of Annapolis, on the bay shore, they ripen well without any trouble.

APPLES.

The Apples which attain the greatest perfection here are "Early Harvest, "Yellow Bough," "Summer Queen," "Maiden's Blush," "Rambo," "Yellow Belle-fleur," "French Reinette," "Rhode Island Greening," "Holland and Belvidere Pippin," "English Red Streak," as sold here; "Kentish Fillbasket," "Yellow, and Green Newton Pippin." The latter name I have always been led to believe is incorrect, according to a list of an orchard planted in 1793. This apple was sent out from Prince's nursery as the New York Greening. There can be no comparison between the fruits grown on the same ground, and with the same cultivation. The trees and growth resemble each other, but not in shape of fruit, nor in flavor "Pomme d'Api," "Roxbury Russett," "James River," "Vandervere," "Smoke House," "White Robinson," and "Hugh's Virginia Crab." For cider there are many more varieties, but none to surpass those ripening in like season.

PEARS.

More attention, of late years, has been paid to the planting of the pear, particularly on the quince root, than formerly. The borers will prevent an extensive planting on this stock, owing to the care required to keep them free. Of the old varieties, the following ought to be in every collection:—"Jargonelle," on Pear stocks, "Julienne," "Madelaine," "Brown Buerre," "Seckel," "Doyenne Blanc." The last two are the *beau ideal* of pears, and no collection can be complete without them. They require generous treatment, and cannot be encouraged too much.

Of the new varieties which have proved superior, the following may be set down as the best:—"Doyenne d'Ete," "Beurre Giffard." The last will become one of the greatest favorites for this part, when known. "Bartlett." "Rostiezer," "Fondante d'Automne," "Bon Chretien Fondant," "Louise Bonne de Jersey," "Duchesse d'Angouleme." This, on a generous soil, and on quince stocks, is certainly a splendid fruit. "Buerre Rose," "Glout Morceau," "Lawrence," "Winter Nelis," "Easter Beurre" "St. Michael-Archange," with Vicar of Winkfield.

The Winter Nelis, in my estimation, excels any other in its season, even the Seckel. The tree is a straggling grower, but with proper care it can be made into a good shape.

A list of pears proved to be good and worthy of cultivation, is as follows:

Belle de Thouars,
Beurre Beaumont,
Beurre Giffard,
Beurre Quetelet,
Bonne de Zees,
Bezy d'Esperin,
Cathinka,
Colmar Sauverain,
Comtesse d'Alost,
Delices d'Hardenpont,
Figue d'Alencon,
Ghislain,
Juvardiel,
La Porte,
Louise de Prusse,
Oken d'Hiver,
Reine d'Hiver,
Suzette de Bavay,
Triomphe de Jodoigne.

The blight on the pear I have found to be caused by high culture, causing the tree to grow late in the fall, thereby preventing the wood from being well matured. Fire-blight proceeds from the same cause.

On planting out my pear orchard, in order to continue the ground square, one corner encroached on the site of an old orchard and garden. The soil was rich, and would grow good vegetables; the other part was very poor, but had not been in trees for many years. The fruit of the same varieties taken from the two portions cannot be recognised as the same; the trees, likewise, are stunted, and of a starved appearance. I have not been able to remedy it, even with deep trenching, liming, ashes and peat. It is to this cause I attribute the cracking of fruit, a deficiency in the subsoil of some material necessary to its perfection.

CHERRIES.

The high lands are well adapted to the cultivation of cherries. The trees, when sufficiently large, produce enormous crops. I picked from one tree in the season of 1853, three hundred and fifty quarts of the Kentish cherry. Many of the new varieties have not been tried sufficiently to speak of them correctly. Of the old ones, "Black Tartarian," "May Duke," "Bigarreau," "Red Bigarreau," "Kentish," "Yellow Spanish," "Halifax," "Belle de Choisey," and the "Carnation," are all of them of good quality.

GOOSEBERRIES.

These cannot be cultivated in the country to advantage, owing to the mildew. In the city they do well, and come to great perfection.

PEACHES.

This fruit is one of the greatest staples of the State, and I think it may be said, with confidence, that in no part of the world are they produced in greater perfection. The sandy or light soils are preferred for planting the peach tree; but unless the sub-soil contains a certain something that is wanted to perfect the fruit, the trees soon have the appearance of the yellows. On other soils, in elevated districts, where the subsoil is composed of mica, rotten rock, slate, &c., old trees can be found of healthy appearance, from thirty to forty years of age, and producing good fruit every year. Many fine seedlings have originated in this vicinity, which, I think, when fairly tested, may prove worth cultivation. One or two can be recommended as being superior, and ripening at a season when good peaches are scarce. The "Dulany," a seedling from Heath, I think superior.—The "Hunter," shape and size of large "Early York," last of September, equal in flavor to "George IV."

GRAPES.

All the foreign varieties do well in the city lots, where proper care is taken to prune close and attend to them when growing. There have been several vineyards planted in the State, but none, that I know of, are in a flourishing condition.—They will succeed here as well as in any other part, provided proper soil, location and attention be paid to them. No better soil and location need be wanted than can be found on the Gunpowder river, for thirty miles from the city. The fox and chicken grapes are growing in the greatest abundance, and running over the tallest trees.

NECTARINES.

The "Hoffman" nectarine is a seedling raised from a peach-stone, with yellow meat, a cling, and large size. The owner was entirely ignorant of its merits. He is in the habit of planting the stone of any superior fruit he may eat. It is of the size of large "Early York" peach.

STRAWBERRIES.

For market, with me, none have excelled "Hovey's Seedling," "Kean's Seedling," "Alice Maud," "Boston Pine," "Elton," "McAvoy's," "Superior," and "Myatt's Eliza," all produce fair crops, and are good fruit. "Iowa," "Black Prince," "Longworth's Prolific," and "Sneicke's Pistillate," may do for fancy varieties. Dr. Edmondson has raised two of great merit, the "Harlem Orange," and "Marylander."

MILCH COWS AND ESCUTCHEONS.

When Guenon's theory of determining the value of milch cows by the growth of hair on its thighs above and adjacent to the bag, was first introdeced, the idea was received with a good deal of scepticism. Time has wrought changes. At a late convention, by the legislative club of the State of New York, one of the speakers gave the evidence in relation to Guenon's theory:

"M. Guenon, a French writer, has discovered certain indications which he claims to determine the milking qualities of cows. This he calls "escutcheons," being the hair which grows upwards, (contrary to the general rule,) on the udder, thighs, and hinder part of the body. It is easy to distinguish the escutcheon by the upward directions of the hair which forms them. I cannot go into detail here upon the system, but would refer to the work of M. Guenon itself. But to show that it is esteemed worthy of notice, I will allude to the testimony of those who have given attention to it.

"Mr. John Haxton, in a work published in 1853, entitled, "How to choose a good Milk Cow," in reference to the indication of a good milk cow, p. 178, says, "The writer has examined many hundred of dairy cows in Britain, and the conclusion arrived at in regard to Mr. Guenon's test of judging of the milking propertiess of a cow by the development of the *ecusson*, is, that, in a very large majority of cases, it is borne out by facts." In a London dairy, belonging to Mr. Riggs, 31 Edgware road, where about 400 cows are kept, and where nine-tenths of them are far above average milkers, the *development* or *upward* growth of the hair on the posterior part of the udder, thighs and perinæum, was too remarkable to be accounted for by accidental causes. As well might it be said that all other tests, such as length of head, softness and flexibility of skin, and wide quarters, were accidental, and had no reference to the milking properties of a cow. When a phenomenon presents itself over and over again, accompanied in a majority of cases by certain results, we may be certain that it is not accidental, but natural;—and while we may be unable to account for these results upon satisfactory grounds, it is neither philosophical or prudent, to deny or ignore the connection between the one and the other, and thus to forfeit the advantages which the fact itself is calculated to afford."

The late Mr. Phinney, of Massachusetts, a very careful and critical observer, made examination of a large number of milch cows, and found in a majority of them that were good milkers, these developments well marked. He conversed with a a large number of intelligent gentlemen when he was abroad in 1851, in Great Britain and France

and found but one opinion as to the general character of the animals which possessed these developments. And so far as we have learned the views of gentlemen in this country who have given attention to this subject, the result has been the same.

"I think it may with safety be affirmed, that this 'one principle' is established—that, all things being alike, as regards shape, texture of skin, &c. cows with well developed escutcheons will, in a large majority of cases, be found to be the best milkers, and above an average; while, on the other hand, those with very small escutcheons, will be found under, or at most, not above an average in their milking properties.

"In calves the escutcheons show the shapes which they are afterwards to assume. They are more contracted only because the parts which they cover are slightly developed. They are easily perceived after birth, but the hair which forms them is long, coarse and stiff. After this hair falls off, the escutcheons of calves resemble those of cows, though of less size. This will enable the farmer to save such calves as will probably serve him as good milkers."

GUANO—ITS HISTORY.

Guano, as most people understand, is imported from the Pacific—mostly of the Chincha group, off the coast of Peru, and under the dominion of that government.

Its sale is made a monopoly, and the avails to a great extent, go to pay the British holders of Peruvian Government bonds, giving them to all intents and purposes, a lien upon the profits of a treasure intrinsically more valuable than the gold mines of California. There are deposits of this unsurpassed fertilizer, in some places, to the depth of sixty or seventy feet, and over large extents of surface. The guano fields are generally conceded to be the excrements of aquatic fowls, which live and nestle in great numbers around the Islands.—They seem designed by nature to rescue, at least in part, that untold amount of fertilizing material which every river and brooklet is rolling into the sea. The wash of alluvial soils, the floating refuse of the field and forest, and above all, the wasted materials of great cities, are constantly being carried by the tidal currents out to sea. These, to a certain extent at least, go to nourish, directly or indirectly, submarine vegetable and animal life, which in turn goes to feed the birds, whose excrements at our day are brought away by the ship-load from the Chincha Islands.

The bird is a beautifully arranged chemical laboratory, fitted up to perform a single operation, viz: to take the fish as food, burn out the carbon by means of its respiratory functions, and deposit the remainder in the shape of an incomparable fertilizer. But how many ages have these depositions of seventy feet in thickness been accumulating!

There are at the present day countless numbers of the birds resting upon the islands at night; but, according to Baron Humboldt, the excrements of the birds for the space of three centuries, would not form a stratum over one-third of an inch in thickness. By an easy mathematical calculation, it will be seen, that at this rate of deposition, it would take seven thousand five hundred and sixty centuries, or seven hundred and fifty-six thousand years, to form the deepest guano bed. Such a calculation carries us back well on towards a former geological period, and proves one, and perhaps both, of two things—first, that in past ages an infinitely greater number of these birds hovered over the islands; and secondly, that the material world existed at a period long anterior to its fitness as the abode of man. The length of man's existence is infinitesimal, compared with such a cycle of years; and the facts recorded on every leaf of the material universe, ought, if it does not, to teach us humility. That a little bird, whose individual existence is as nothing, should, in its united action, produce the means of bringing back to an active fertility, whole provinces of waste and barren lands, is one of a thousand facts to show how comparatively insignificant agencies in the economy of nature, produce momentous results.—*London Farmer's Magazine.*

PROCEEDINGS OF THE MEETING OF THE FARMERS OF THE WEST RIVER DISTRICT.

A meeeting of the farmers was held pursuant to call, at Galesville, on Saturday, Sept. 29th, 1855, when Col. *George W. Hughes* was elected President, and B. A. Welsh was elected Secretary.

The President addressed the meeting at some length, in a very forcible and pertinent speech.

Dr. Richard Stewart offered the following resolutions, which were unanimously adopted:

1st.—*Resolved*, That the farmers of the West River District do hereby agree to establish at Galesville a market for the sale of stock, fruit, vegetables, and in fact for all that can be spared from the farm.

2nd.—*Resolved*, That the time for holding the first market, shall be on Tuesday, October 16th, 1855, at 11 o'clock, A. M., and that a market be held every fortnight thereafter, until further notice.

3d.—*Resolved*, That a statement of this meeting be sent to the American Farmer for publication, and that the Secretary advertise in the Baltimore Sun and Annapolis Republican, for the information of city butchers and hucksters, and that they be invited to attend on the day of sale.

Ample funds were subscribed to carry these resolutions into effect.

The Farmers of the West River District will hold their next meeting at Galesville, on Tuesday, October 16th, 1855, immediately after the market.

By order of the meeting,

B. A. Welsh, Sec'y.

☞ We call attention to the advertisement of E. Clarkson, Esq., proposing to make paintings from life of horses and other animals. We have reason to believe Mr. C. is competent to give full satisfaction to those who may require his services, and should be glad to see our Maryland breeders encourage this branch of art.

Reciprocity.—The Cumberland, (Md.) Telegraph, in enumerating the causes of the decline in the trade of the Coal of that region, says:

"The introduction of Pictou Coal, under the Reciprocity Treaty, free of duty, has also curtailed our sales, as it is the only coal that comes in competition with Maryland Coal."

AMERICAN FARMER.

Baltimore, November 1, 1855.

TERMS OF THE AMERICAN FARMER.

Per Annum, $1 in advance—6 copies for $5—13 copies for $10—30 copies for $20.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, $1—1 square per annum, $10—larger advertisements in proportion—for a page, $100 per annum; a single insertion, $15, and $12 50 for each subsequent insertion, not exceeding five. Address,

S. SANDS & WORTHINGTON,
Publishers of the "American Farmer,"
At the *State Agricultural Society's Rooms*, 128 Baltimore-st.
Over the "American Office," 5th door from North-st.

THE CATTLE SHOW.

Before this number of the *Farmer* reaches the great body of our readers, the 8th Annual Exhibition of the Maryland State Agricultural Society will be in full blast—and from the indications at the present time, should the weather prove propitious, we have every reason to anticipate a better Show than has ever graced our beautiful grounds. The entries are very numerous, and many of the best specimens of the flocks and herds of Maryland and the neighboring States, will be on the ground. A more extended notice is not necessary at this late day, but should this reach any reader in time to be with us during the Exhibition, we hope that the opportunity will not be lost. It should be the pride, as it certainly is the duty and interest of every farmer and planter, to give our Exhibitions their aid and support, and its meetings their personal attendance. Let them, then, be with us during the festival week, and be sure to bring with them their wives and daughters, to grace our Show grounds with their presence.

The meetings of the Society will be held at the Hall of the Society every evening of the week, during which discussions are expected on different subjects of interest to the Agriculturists of our State.

It will be seen by the programme of the Committee appointed to prepare rules for the trials of speed on the track at the Society's ground, that this part of the Exhibition is likely to be very exciting.

The brilliant corps of the U. S. Flying Artillery, under the command of Maj. French, is to visit the Show grounds on Thursday, and will go through its evolutions during the day.

STATE FAIRS.

The Annual Fair of the *Pennsylvania State Agricultural Society*, took place at Harrisburg the last week of September. The Exhibition generally, was spoken of as a very creditable one, and very largely attended. We are pleased to find that many of the best premiums were borne off by some of our spirited stock breeders of Maryland. Mr. R. McHenry's Ayrshires, Mr. W. C. Wilson's Alderneys, Mr. Merryman's Durhams, and the Cotswold Sheep of Messrs. Carroll and Jas. N. Goldsborough, are said to have made an important part of the Exhibition. The Exhibition was attended by the President of the United States, by the President of the Maryland State Agricultural Society, and other distinguished visitors.

The New York State Fair at Elmira drew together a very large concourse of people. The Exhibition was a large one in all the departments.

The receipts of the Ohio State Fair amounted to about $10,000, exclusive of $3,000, contributed by the citizens of Columbus. The premiums distributed amounted to $6,000. It is stated that $6,000 were offered and refused for one of the Bulls exhibited. Another was held at $5,000, and two others at $3,000 each. The owner of a cow refused an offer of $1,800. There were eleven imported bulls exhibited, the aggregate value of which amounted to $25,000, and ten cows valued at $12,400.

THINNING THE FRUIT OF PEACH TREES.

A. W. Loughry in the neighborhood of Cincinnati, sold the crop of peaches from eleven acres of ground for about $5000—so he says, and netting between three and four thousand. It was fine fruit, bringing readily $2 per bushel, while indifferent sorts were selling for 25 cts. per bushel. The superiority of his peaches he attributes mainly (of course he had good sorts) to his having fully *three-fourths of the fruit carefully picked off*, when it was about the size of a hickory nut. A laborious piece of work to be sure, but apparently paying well. The almost absolute certainty of good prices for fruit of fine quality should encourage those who grow it, to bestow upon it all the labor and care it will take. There are so few who will learn this lesson, that he who does learn it, will profit all the more. The peach tree has a special tendency in this latitude to over-bearing, and we incline to the belief that Mr. Loughry does not overestimate the importance of thinning the fruit.

LATEST FROM EUROPE.—The Steamer Africa arrived at Halifax on the 24th, and her advices were received same day. Breadstuffs had advanced slightly, which caused an advance in our markets to-day—and Flour and Wheat are firm at prices quoted. Cotton had considerably declined. The money market in Europe, which had been very stringent for the past month, and a panic much feared, had somewhat improved. The political and war news is of litile account, but active preparations were being made for a battle, and by next arrival some important intelligence may be expected from the seat of war.

We call attention to the advertisement of Dr. Geo. A. Dyer, of farm for sale in Montgomery Co., Md., containing 400 Acres.

THE PERUVIAN GUANO TRADE.

We give in this number several communications on this trade, and intended to have accompanied them with some general remarks on the subject, as promised in our last; and we had partially prepared an article reviewing the operations of the same, but find that we are compelled to defer it for the present, to make room for an exposition of our own affairs in connexion with this business.

Through our labors, and the influence of this journal, has this trade attained the importance it now commands. The pages of the American Farmer for the last twelve years show the attention we have bestowed upon the subject, in keeping it continually before the agricultural community, in proving the value and importance of this manure to the agriculturists of our country, and presenting various details in regard to the modes of using it, and the results upon the several crops to which it has been found applicable; and we are satisfied, that to our instrumentality is the Peruvian government mainly indebted for the immense market which has thus been opened, and which is principally confined to that section of country through which our paper mainly circulates; and, as we recently had occasion to remark to the Agency in this city, the Peruvian government could well afford to present us with a cargo of their guano for the services we have rendered to their treasury, in extending the demand for this, the main source of revenue for their support, and for the payment of their national debt. But instead of this, we have recently been the subject of a heartless and tyrannical course of action, by a sub-agent of the government, left temporarily in charge of its affairs in this city, that appeared to be intended to crush us out of a business which we had built up, and which we had every assurance was in accordance with the views and wishes of the Peruvian government. Our readers will bear with us, if we trespass upon them by a recital of our grievances. We feel that we have claims to their sympathy and protection, for it was for the benefit of the agricultural interests that our efforts were enlisted, and for those efforts in protecting them from extortion and imposition, we have had to feel the full weight of a powerful monopoly. We therefore feel it due to those whom we have been serving, as well as to ourselves, that a recital of the attempt to break us down should be made public.

Our connexion with the trade commenced during the Fall of 1853, though we had from time to time, before that period, attended to the orders of our friends from a distance, which we did through gentlemen engaged in the business, and for which we made no charge for our trouble and time; but during the year just mentioned, it was given out that the Peruvian government was anxious to protect the farmers of this country from the grinding impositions of monopolists and traders, and all the usual courses of trade, so far as their staple was concerned, were completely blocked up. Many of our readers will long remember the scenes which were then enacted in this city, by this effort of the Peruvian government, professedly with the design of throwing its mantle around the farmers and planters of this country, to shield them, as it was alleged, from the impositions of speculators and commission merchants, with whom they had been dealing in all confidence for years. Whether the motive was pure or not, (and that it was we will not pretend to deny,) it is well known, that more evil was done to those for whose benefit it was professedly intended, by the manner in which it was conducted, than if the trade had been left to regulate itself in the usual course of things. It worked much confusion and inconvenience, and more loss to the farmer, than if he had been obliged to purchase from dealers and speculators; for before it was known that there was to be such difficulty in obtaining supplies, many had made their arrangements for its use, and were kept in suspense for weeks and months, uncertain whether they would obtain it—their commission merchants, who were refused a ton, were reproached for not forwarding their supplies as ordered, and a most intense excitement was gotten up on the occasion. They had no time to look out for other resources, and unless they got the guano, their labors in preparing their grounds would be thrown away. Finally, as the season progressed, the city was crowded with farmers, many of whom spent days and weeks here, some coming two or three times, and those who after all were able to obtain their supplies, did so at a very heavy cost to them in additional expenses.

It was during this excitement that our services were called into requisition; for nearly all who applied at the Peruvian Agency here, were suspected and charged with being speculators, and hundreds, yea probably thousands of instances occurred, in which our aid was called into requisition, to testify to the fact that the applicants were farmers and planters, and of our belief that they were purchasing for their own farms. We were thus enabled to assist many on that occasion, in obtaining their supplies, as the gentleman then in charge had, we believe, entire confidence in our acting in good faith in the matter, and during the entire season, and ever after whilst he had the control of the business, we experienced at his hands the utmost courtesy and respect, he giving us every assurance that he appreciated our services in promoting the best interests of his country by the diffusion of useful knowledge of this valuable fertilizer. These heavy demands upon our time, caused no little interruption to our business, and induced us to determine upon a small charge for our services for purchasing and shipping supplies to those who were anxious to employ them, as it was found that no

merchant or dealer could do it for them. Our object was not to interfere with traders or merchants, for they could obtain no guano on any terms, but for the accommodation of the farmer, whose loss of time, and his expenses travelling to and fro, were probably far greater than he would have been obliged to pay, if the dealers and commission merchants had been permitted to supply them as heretofore.

Finding by our experience during that season, that we could be of service to the agriculturists of the country, we determined to continue our Agency, and make it an adjunct to our regular business, seeing that it would reasonably remunerate us for our services; and we have to the present time continued it in full operation, except for a few days, that we were compelled to suspend operations, for reasons that will appear in the sequel.

On the first of July, Mr. Barreda having made a change in his prices and terms, we shortly afterwards called on him to learn on what terms we would be able to conduct our Agency. The scale of prices in the meantime had been announced in the public prints by our means, and traders had advanced the price to $55 per ton. We remarked to Mr. Barreda, that if we could make an arrangement by which we could obtain supplies at his lowest rates, we could continue the sale at about the price we had sold at for some time past, and thus avoid the odium which would otherwise rest on the business by the advance in price. In the most emphatic manner we were told that there was no necessity for any advance in price; that dealers could obtain supplies on such terms as would enable them to make sales at about the former rates, and still realize a handsome profit—that by examination of our account last season, and that of others engaged in the business, it was found that we had sold more than 2000 tons, and that therefore the change now made need not affect the price—that by agreeing to take 1250 tons and taking it out in lots of 100 tons, we could get it at $50 per ton,—instead of 200 tons, and taking and paying for it in lots of 50 tons, as heretofore. As we had understood from a reliable source, that it had been reported that he had required it to be sold at not less than $55 per ton, by the trade, we enquired if he had any objection to our keeping it at as low a price as possible. He promptly replied, no—that he did not care if we sold it at $49 per ton. From his manner and language, it appeared to us, that Mr. Barreda was gratified at our intention of continuing our Agency—and we were further convinced of this a day or two after our interview with him, by a visit of a gentleman from Virginia, who wanted 100 tons for himself and friends, and who informed us, that having called on Mr. Barreda, he had referred him to us, as we could sell that quantity to him on better terms than he could, under his recent arrangements. These were the only changes alluded to by Mr. Barreda, and we left him much gratified at the idea of being able still to furnish the article at a cost that we knew would not be grumbled at, whilst produce was at the remunerative prices then enjoyed. We immediately issued our circulars and advertisements, offering, if the farmers would sustain our efforts, to furnish the guano at $51 to $52 per ton, of 2240 lbs., (according to the place of delivery.) In a week or two after our cards were published, we began to receive numerous orders on these terms, and had committed ourselves to various persons, to supply them in accordance therewith—and thus being prepared to commence operations, we called at the office of the Agent to obtain our supplies—We found that that gentleman had left the city to spend the summer at a watering place, and left the business in charge of a deputy, who saluted us with the novel requirement, that we should deposit $5000 in his hands, and that if we received and paid for 1250 tons in *one month*, then the $5000 was to go towards paying for the last 100 tons of the lot—otherwise, it was to be forfeited to Mr. Barreda! This annunciation startled us, and we protested against it, as contrary to the arrangement entered into by us with Mr. Barreda; that we would not have undertaken the business for this Fall, if such terms had been made known to us; and we repeated the conversation and arrangement which had taken place between Mr. Barreda and ourself—to all of which the only satisfaction we could obtain was, that he had his orders, by which he intended to abide—that rules were laid down for him which we as well as others had to comply with, and that it was no use to make rules if they were not enforced—and we were assured that the same requirements were made of all others; which we afterwards were informed by several of the principal dealers in the city, was not the case—*that this exaction on us, as well as others of a similar character, which were afterwards enforced, was not required of them.* We thus found ourselves caught in a trap. We had received a large number of orders at our published prices, and if we did not go forward, we would be obliged to supply the article to our friends at the advanced rates of $55 or $56, instead of $51 or $52, as proposed; for we knew that if we withdrew from the business, the price would directly go to the highest point. To go on, we would risk the forfeiture of the $5000 we were required to place in the hands of the deputy; and we soon had the evidences satisfactory to our own mind, that if it could be wrested from us, we might certainly expect to suffer the loss. Finding, however, that it would be better to run the risk, and hoping that the appeal we had made for the support of the farmers would be responded to in time to enable us to escape the payment of the penalty, we deemed it safer to go forward, than to suffer the certain loss which we would have to encounter by the advance in the price, if we declined continuing the business. We consequently, having no alternative, made the deposit demanded, and commenced our operations. This requirement was made of us, evidently to stop our business, it being supposed we either could not or would not undertake the work under such circumstances; and if we were out of the way, and the regular dealers selling for $55 for all lots under 30 tons, all over that would be sold at $55, with one per cent. off, at the Agency.

We however, went ahead, and it was soon discovered that we could save our $5000 by getting through our contract in time. We were then notified, that in addition to the deposit of $5000, we must, for every order for 100 tons which we obtained, pay the cost thereof, *at the time of receiving the order*, instead of after its delivery, as was heretofore the case. This was another screw turned upon us, the former not being found sufficient to break us down. We remonstrated against it as it was contrary to our written contract, and in direct violation of the assurance but a few days before made to us by the deputy, that though the rule

was applied to others, it would not be made applicable to us.* Having no alternative, we were obliged to submit to this fresh imposition, and consequently had to go with cash in hand for every lot, before we were allowed to obtain a single pound—*thus being in advance* all the time to this monopoly, in the sum of about $10,000. From the 23d July to the 14th of August, we had delivered to us, 1,250 tons, for which we paid in cash, upwards of $60,000. On that day we applied for another contract, and were then told, that we would be required to take out and pay for the same amount, within the month, or in a little more than *two weeks!* We were in the same condition as before; orders had accumulated faster than we could ship the guano, and we were obliged to submit to this additional outrage—and we found it necessary in the short space of about two weeks, to raise the funds to pay for, and the means for shipment of, this large amount, under a continual excitement for fear of not accomplishing the object, thereby jeopardizing our deposit money—and had we not been favored with fine weather, whereby we did not lose a single day, in our operations, we know not what might have been the consequence. Suffice it to say, that on the 27th of August, we had received the second lot, and found our orders on hand still to the amount of 300 tons or more, which we were expected to supply at the rates ruling for the last eight weeks. We applied for another 1,250 tons, and were then told, that unless we took it all from the warehouse, and paid for it before the 1st of September, (then three days off!) we could not have it. This was an impossibility, we urged, but finding no prospect of obtaining our demand, we asked then to have our contract extended to the 1st of the month, so that we might obtain the amount necessary to fill our orders on hand—but no entreaty could prevail to obtain so reasonable a request. The object evidently was to drive us out of the business, so that the price could be put up, and finding other measures inoperative to this effect, a change was now about to be made, which it was supposed would accomplish the object. We had to suspend further sales on the 27th August, and to wait till the 1st of the month, as it was given out that no sales would be made, except such as should be delivered prior to that date—which rule, however, we have reason to believe, was not equally imperative upon others, as made to bear upon us. The very day we were refused another supply the price immediately advanced, showing that we had controlled the market, and had kept the price to about the rate charged by us, and by this means, up to this time, we saved thousands and tens of thousands of dollars to the pockets of the farmers; *for it was not only the saving on what was sold by us, but the traders in this and throughout the neighboring States,* had, to a considerable extent, to conform to our rates.

On the 1st Sept. it was announced to us that no larger lot than 500 tons would be sold; that the price for the same would be $53 per ton; that the *whole would be delivered in one lot,* and that the cash for the same (upwards of $26,000) was required to be paid in advance. This was supposed to be an effectual barrier to our future opperations, and we were coolly told that we could buy it in *New York* on former terms, or that we had better apply to outsiders for our supplies to fill our orders on hand. It was evident from what had passed, that it was determined to get us out of the way; but as before remarked, we had large orders unfilled, and were thus obliged to purchase at the advanced rates, to enable us to supply them at the old prices—thus causing a dead loss of a large amount to us. We purchased the 500 tons, notwithstanding, though we asked for the delay of a single day in the presentation of our check for less than one-fourth of the $26,000—but no, not the slightest *favor* of the kind would be granted—though they had had in their hands most of the time prior to this about $10,000 of our funds, and we had paid them within the last 5 or 6 weeks upwards of $120,000. We accordingly gave a check for the whole cost of the 500 tons, and deposited the amount necessary to meet it, in bank, before a pound was delivered to us.

We have extended this statement farther than we intended, but we are aware that our numerous friends will feel an interest in the matter, and as it has a bearing upon the question we propose to have agitated before the agricultural public, it will show the arbitrary and oppressive character of the Peruvian government, acting through its agents in this country.

We have given above a simple narration of facts, in which it is true, we are directly the most intimately interested party, but nevertheless every farmer in the Middle States is more or less involved in the injury inflicted upon us—they were struck at through us, and to reach them, a blow was aimed at us which was calculated to paralyze our efforts, and to prostrate our business.

We have already occupied so much space on this branch of the subject, that we must delay for a future occasion, to present additional evidences of the necessity of a change in the present system by which this business is conducted; and we may probably be able to prove to the Peruvian government, that their own interests, as well as that of the American community, call for a change.

*We have reason to believe that this requirement was not applied to the regular traders at that time, but was intended specially against us.

Another Advance in Price of Guano.—On the 17th ult. the Peruvian Agent in this city again changed his terms of Guano—sales are now made in lots of not less than 200 tons, at $55 per ton. The retail prices advanced accordingly, to $57.

THE GUANO TRADE.

To the Editors of the American Farmer.

GENTLEMEN:—I am surprised to see from your number of this month, that you, with some of your correspondents, are in favor of requesting our government to adopt coercive measures to compel Peru to sell us guano at a lower price than the present, and that you advocate a sliding scale of duty, advancing and receding with the price of guano.* This might have the desired result if we were the only purchasers of the article; but there is an immense and increasing demand for it in England. France begins to use it, and other parts of the European continent might soon call for it, when acquainted with its value. I learn from the same number of your paper that Australian farmers are commencing to apply this fertilizer, and that it will

* Our correspondent will inform us where he finds this recommendation from us.—Ed.

be an article of considerable import there; it is therefore probable that Peru, if excluded from our market, would not be at a loss for customers, and that we would be the only sufferers from the proposed measure. The Peruvian government has the monopoly in the full extent of the term, for they alone possess the very best guano known to this day in the whole world, and as the article is not one of manufacture, as the stock, according to report is limited, and must at the present rate be exhausted after a number of years, they have no strong inducement to extend their sales. I grant that they are arbitrary, and that they abuse the advantage of their situation; * but what can we do but submit? You want to buy an article the owner of which will sell it only at a certain price, and on a certain condition; you may take it or you may leave it, no human power can compel him to alter his terms. †

During Gen. Taylor's administration, Mr. Clayton I think tried friendly remonstrances; their effect, if they had any, seems to have been of short duration. If our government have any retaliatory measure in their power, let them try it; otherwise I do not know of any remedy except the one recommended with regard to Cuba by the Ostend Congress, and I for one am opposed to it.

In the meanwhile, as guano cannot last forever, let our brother farmers learn to husband their own domestic resources, and not to buy in market an expensive article without previously ascertaining whether they have not one equally as good, wasting at home, for want of some care and labor. Above all, when they apply guano, let them do it judiciously with intermediate green crops and barn-yard manure. I am told, and I believe that in Peru lands exhausted by means of guano are considered irreclaimable. I am with great regard,

A SUBSCRIBER AND A FARMER.

NEW CASTLE Co., Del., Oct. 15, 1855.

To the Editors of the American Farmer.

Citizen Barreda and his government are taking singular steps as regards guano; I am opposed to the spirit of retaliation, but the Peruvian government must be reached in some way, and the most effectual one to reach them, is through the pocket, and my impression is they will feel it most sensitively that way.

Your people of Baltimore some few years back, gave beef speculators a severe thrust; I think it was done by town meeting and resolutions; now as our farmers cannot reach those guano speculators by resolutions, I know we can reach them through the ballot box and Congress; exclude their guano by a duty, and then you will make them feel;—the farmers in this country have resources within their reach, lime, &c., &c.; bring these into operation and we will not be beholden to the Peruvian government for their bird dung. It appears to me these steps were taken to pillage the farmers, and you must be crushed before it can be accomplished. The farmers have the power—let them unite, and then they will show the speculators, that they cannot be imposed on—all the landholders ask is an honest fair game, regular trade with all nations, and no imposition from speculators and newspaper editors. Just look at the last treaty with Canada; our government allowing them to bring their wheat, &c., &c., into our markets, for the paltry consideration of allowing a few yankee boats to catch a few hundred codfish in the Bay of Fundy. The farmers must look close to their interest, and not suffer such impositions as they have for years back; it is time such doings were stopped.

FARMVILLE, Va., October 5th, 1855.

To the Editors of the American Farmer.

GENTLEMEN:—I hear there has been some advance in the price of guano. I will want say about 10 tons, but do not want it until the 1st week in October; and had been thinking there would be a fall instead of an advance in the price, as the season was nearly over. I think such fluctuations in the price should induce the farmers to look to some other source of improvement, and not allow themselves to be dealt with so childishly. I approve of your efforts in behalf of the farming interest, and should have ordered my supply from you, but not having as yet disposed of my wheat I was not ready to pay for it. I have for sale one thousand bushels superior white wheat, perfectly dry and in good order; but I do not want to sell until there is some more settled price in the market. I have a wharf on my adjoining farm, at which the steamers between Baltimore & Fredericksburg touch regularly. They have taken off a good deal of wheat from this wharf to Baltimore this season, and you will not be surprised when I tell you the price *obtained* for similar wheat has varied (97) ninety-seven cents on the bushel; $1.40 is the lowest, and $2.33 the highest. Now what is a man to do—I hear to-day wheat is $2 per bushel in Baltimore; I ship to morrow by the steamer, and it is sold the day after! for what? maybe $2, or maybe $1.40, which makes a difference of $600 in a crop of one thousand bushels. Under these circumstances I shall hold on to mine a while longer, and look to other resources to buy guano, if the price you can afford to put it at will justify my buying. Excuse me for running with such a long letter, and let me tell you another fact about your *wheat buyers;* there is a widow lady living in the neighborhood who sent in bags by the steamer 60 bushels wheat, and pretty good too, and the commission merchant sold it three times before it was all delivered—what do you think of that, for a wheat buyer to throw up a lot of wheat twice, that contained only (60) sixty bushels, and each time demanded a deduction of 10 cts. per bushel; but such is the fact. Your early reply will much oblige.

Very respectfully,

A. L. C.

LANCASTER Co., Va., Sept. 14, 1855.

GENTLEMEN:—the guano has arrived, but I am at fault in fixing the responsibility where it belongs, for the very bad order and damp condition in which it was delivered, as it was generally so, and of an old importation, as the marks indicated, being "J. C. Polk, Inspector, 1855." It has occurred to me that the damage has occurred in the warehouse; and in the hurry of shipping may have escaped your observation. * I deem it however proper to give you the information, that you may investigate the matter, and take such steps as you think right and proper in the premises. As a matter of course I attach no blame to you as the bags are marked "A."

* This is the main objection to the present system.—Ed.

† This can be done by withholding the supplies—we are very much in want of the *guano*, but they probably need our *cash* still more.

* We will take occasion at another time, in the course of our review of the guano trade, to allude to this matter, as one of the many impositions to which the public is exposed under the present system.—Ed.

although by an old inspector; but it would certainly not pass for No. 1 in the condition it was delivered to me.

Very respectfully your friend and servant,
C. M.

KING GEORGE C. H., Va., Sept. 20, 1855.

"THE BEASTS THAT PERISH."

We mean, good reader, those old cows and oxen, yours perchance, destined to die of cold and starvation, somewhere between the 10th of March and the 10th of April, 1856, "poor and very ill favored, and lean fleshed," such as Pharoah dreamed of, but "never saw in all the land of Egypt for badness." We are neither a Prophet, nor the son of a Prophet; but judging by the past, we have a distinct foreseeing of what will surely come to pass, as to these said lean kine.

In the first place they will do what they did, in Pharoah's dream; they will eat up the fat kine.—That's their mission and their revenge. Whatever of profit your generous milkers and well fatted oxen may have yielded, will surely be swallowed up in this most unthrifty trade of murrain hides. It is a trade that cannot by possibility be made to pay expenses. Even the farmer who discharged his overseer, because the result of his year's management show a falling off in this source of income, we have reason to believe made no gain by such sagacious policy.

Apart from any consideration of profit, surely no man, much less one who calls himself a christian, will distinctly anticipate and realise, the misery, and slow pining wretchedness of the helpless brutes he has charge of, without taking prompt and efficient measures to guard against it. It is for this reason, we call attention to the matter now. Now is the time to prevent it, because now it can be readily done. There is no difficulty about it, if taken in time.

Overlook your stock and your means of support, and determine what proportion you have the amplest provision for, through the winter and Spring. All supernumeraries, either sell to your neighbour who may want, or begin at once to fatten for the butcher, and get rid of before Christmas.

For those that remain, have not only good and sufficient food, but houses or sheds, and dry beds. Food is not sufficient without protectlon from the weather. High feeding will compensate in a measure for exposure, but it is very wasteful management. Every animal should have *at least* the protection of a shed, closed on three sides. Cattle winter better perhaps in such sheds than in closer houses, but only because of the difficulty of ventilating the latter. The warmer an animal can be kept, the more economically can he be fed, other things being equal; *but clean wholesome air is as necessary as food.* The master should go to bed on a stormy night, with the comfortable reflection, that every beast dependant upon him, is as comfortable as himself. Such management will break up the whole trade in murrain hides, but it will be a profitable loss, and one that the farming community can well afford.

BREAD IN FRANCE.

"It is estimated that in France, before the bread reaches the consumer, the grain and flour of which it is compounded, *passes through the hands of* TWENTY SPECULATORS!"

We cut the above from an exchange paper in this country. We are hastening to the same point indicated above. The non-producers, who stand between the producer and the consumer, are yearly increasing. There is scarcely an article necessary for the sustenance of life, but has to go through several hands, before it reaches the house or land-holder. We were forcibly reminded of this progression, in a recent case in which we were interested. After the Peruvian Government agency in this city threw us off the track because we did not chime in with their views for advancing the price of Guano, we had occasion to purchase a lot elsewhere than from the Agency—and paid $500 as a bonus to a party, for the privilege of two lots (original orders of the Barredas,) of 100 tons each, which had come to us through two other parties. We sold it to farmers at our usual advance—thus coming to them after it had passed through *four* other hands, all of whom had their profits of course, and costing the farmer from $55 to $56, (according to the mode or place of delivery, before it left the city,) instead of $51 to $52, the rates we had before been delivering it at.

FRUITS.

As this is the proper season for planting fruit trees, we take occasion to direct the special attention of our readers to the subject. For health and profit, and as a necessary part of a complete farming establishment the orchard commends itself.

It is well understood that during our hot summer months, the free use of good fruits is eminently conducive to health. The universal taste is a sure indication of its value. Nor is it less agreeable or less valuable as a variety in our winter stores. On the score of profit, no crop will yield larger returns for ground occupied, and labor required. The statements of profits of good fruits which we have s een are sometimes marvellous. The New York *Horticultural Review* in an excellent article on trees, speaks of $10, $20, and sometimes $50 as the annual income from a single tree. A Virgalieu Pear tree has netted Dr. Hastings, of Clinton $50, in one season. Isaac Dennison, of Albany, reports a single crop of plums from four acres of land, which sold for $1200—a green Gage plum tree at Charlestown, Massachusetts,

yielded several successive crops worth $40 and $50. The apple orchard of Mr. Pell, of Ulster Co., New York is said to yield $40,000 per annum —clear of expenses, the apples bringing always $6 per barrel in New York, his crop being about 10,000 bbs. This orchard is said to be the largest in America, is composed chiefly we have understood of the famous Newtown Pippin, a fruit which bears exportation well, and is said to retail in London at the rate of $21 per barrel. We have before us specimens of this fine fruit, the Newtown Pippin, cultivated by Mr. Woodside, of Howard Co., weighing a pound each, measuring thirteen inches in circumference, and fair samples, Mr. W. says, of the yield of a tree on his farm. They are beautiful samples, and show that they can be grown, perhaps, as perfectly in Maryland as in N. York. Notwithstanding the great abundance of fruits of all sorts, good peaches have brought $2 per bushel in the Baltimore market this season, and pears $6 per bushel, showing that good fruits, with the constantly increasing demand, are likely always to pay well.

But where the farmer from remoteness of market, or other circumstances will not probably find the cultivation of fruit a source of revenue, he who takes a just pride in the completnsss of his farm establishment, and appreciates the comforts and luxuries which it is his privilege to enjoy, will not debar himself and his family of the use of an orchard of the best fruits. It is a common mistake to say that the tiller of the soil lives upon "the fat of the land;" he may and should do it. No man should be a *better* liver, or a *higher* liver than he, as to *creature* comforts. We do not mean *that* high living which consists in costly furniture and splendid equipage, expensive imported wines, and food dressed and seasoned to stimulate the appetite to gluttony, but that good living which consists in the use of the very best the earth affords to skilful culture. Good meats, good vegetables, good fruits, *and* (heresy tho' it may be thought by some of our readers,) *good drinks*. The man who appreciates this sort of living must have an orchard.

In recommending the cultivation of fruits, we mean *good* fruits. The poor abortions which pass muster with many, the mere spontaneous efforts of unassisted nature exhibited upon trees, the seeds of which the birds have sown, or the roots of which have been rammed into narrow holes, more fit for their graves, than their living and growing places; while the branches have grown at their will, with reference rather to wood than to fruit —these are mere indications of what nature seeks to do for us. Fruit, that which deserves the name, is the joint product of nature and man; the latter bringing to bear skill and intelligence in improving and perfecting nature's work. *Some* men have co-operated with nature to such purpose, that at small expense we may be furnished with the best qualities and varieties. It is only necessary that some *other* men should search them out, and having obtained the best sorts, give them such good culture and attention as they may require. We hope those of our readers who are destitute of good fruit, will take our hint and supply themselves.

VETERINARY SCIENCE.

We have received the first No. of the *American Veterinary Journal*, edited by George H. Dadd, Veterinary Surgeon, and hail with pleasure a Journal, devoted to a Science of so much value to the agricultural community. Dr. Dadd is well known as having high qualifications, both in his experience as a Surgeon and in scientific attainments, for the editorial chair of such a Journal, and will, we are confident, furnish its readers with the very best information to be had as to the treatment of the diseases of domestic animals, and, in the language of his prospectus, "Regarding the best methods of *prcserving* the health of live stock, as comprehended in the systems of breeding, rearing, barn and stable management," The Journal is a monthly of 32 pages octavo, at $1 per annnm, published by S. N. Thompson, No. 97 Union Street, Boston.

It is a great reproach that the noble animals subjected to our dominion, and placed under our guardianship, should be so universally the victims of the wretched quackery which it is the privilege of every ignoramus who calls himself a Farrier to practice. The master whose intelligence makes him aware of his want of power to relieve a sick beast, rids himself of the responsibility by handing it over to the charge of one who practices upon it with an assurance which is in exact proportion to his profound ignorance. For our own part, we have long thought that beyond the simplest cases of disease, it is safer in our present ignorance, to leave the animal to himself. The appearance of the *Veterinary Journal*, and the establishment of the *Boston Veterinary Institute*, with a faculty of four scientific men, are signs that the treatment of the diseases of animals is to be, to some degree at least, taught and diffused as a science.

We have wondered that this subject has been so entirely overlooked by the Medical faculty of our day. The wise and benevolent Dr. Rush, did not think it a subject unworthy of his attention. In the year 1807, his Introductory Lecture, delivered in the University of Pennsylvania, was upon "the duty and advantage of studying the diseases of domestic animals." The subject, he says, is an interesting one to private gentlemen, as well as physicians, "and I entertain too high an opinion of the good sense and correct views of medical science, of my present audience to believe, that a few remarks upon it will be deemed an improper introduction to a course of lectures upon the institutes and practice of medicine."

He urged the duty of attention to the subject with great force, and upon various considerations. As being placed under our immediate care, and dependant upon us, and as being subject to death and disease, and pain in common with us, as the effects of the rebellion against the Governor of the Universe, which subjected Adam and all his posterity to the same evils. On the principle of gratitude for the benefits, comforts, and necessaries we enjoy in their use—the labour they perform for us—the food they furnish us—the clothing they afford us. Not to enlarge upon the various other animals, the noble Horse, alone, is not only an important appendage, but a necessary part of the cement of civilized society. He ploughs our fields and brings home our harvests and fruits. He keeps up communication between remote parts of the country and sea-ports, and markets. He favours the intercourse of neighborhoods, and the rapid communication of intelligence. He administers to health and pleasure under the saddle, and in harness. In vain would country churches and courts be opened without the strength of this noble animal; nor could the great system of representative government be supported in an agricultural country, unless he conveyed the elector to the place of suffrage. Such are some of his services in time of peace, and he avails us as well as a protection and defence in war. Surely we owe a debt of gratitude to such a servant, which is too poorly paid.

Yet not only on the principle of gratitude, but upon that of mercy, are we bound to give these poor creatures our intelligent supervision, and thoughtful care for the prevention and the cure of their diseases. "The merciful man is merciful to his beast," and only to the merciful, is mercy promised. And how is this principle violated, when we keep ourselves in wilful ignorance of their diseases, and hand them over to stupid illiterate quacks, who by their ignorant efforts superadd torments in aggravation of the disorder which already afflicts them. Who open their veins, lacerate their flesh, cauterise their sinews, and drench them with drugs as likely to kill as to cure them—remedies absurd, painful and destructive, the suggestions of a self-reliance founded and built upon ignorance. We owe it to ourselves, as we look for and seek that merciful supervision which cares for us, and provides for us continually—that we provide with the utmost care, for all the wants of the creatures over whom God has made us overseers.

It will be a long time, we fear, before the farming community may have the benefit of well taught men of Science, trained in such an Institution as the *Boston Veterinary Institute*, who may practise veterinary medicine as a distinct pursuit, but it seems to us, in every medical college, Veterinary Medicine should be separately taught, and the diseases of animals receive seperate attention, and that it should be just as much a part of the business of the medical practitioner to prescribe for the poor brutes, as for other patients. The practice of Farriery has degraded the treatment of the diseases of animals. Let the subject be introduced and taught in our Colleges, as a branch of Medical Science, and the medical man will not think it beneath his dignity perhaps to practice it as such.

THE EXPORT OF BREADSTUFFS, &c.

In our pages of this month will be found a number of very important articles from the most reliable sources, upon the subject of the shortness of the European harvests, and the consequent demand for our produce—and the excitement through the past month in our markets has been of the most intense character, and overshadowed all other topics, important as they have been, both of foreign and domestic affairs. An immense amount of flour, grain and provisions, has been purchased, as is generally supposed, on account of the British and French governments, and the prospects are evidently fair for a continuation of the demand. In France and on the Continent, there is much apprehension felt by the governments, lest the scarcity of bread may produce serious results to their internal tranquility—and the following official paper, received by a late arrival from the Minister of the Interior of France, to the Emperor, shows very significantly the feeling on the part of the French government, upon this subject, and also that the main reliance is upon this country for the furnishing supplies to make up the deficiency of the European crops, now officially admitted to be very short of the usual harvests:—

"*The Food Question in France.*—the Moniteur publishes the following report to the Emperor:

"Sire,—The produce of the last harvest and the large addition which the United States and other more favored countries can easily supply to it assure to our people the requisite amount of sustenance for the consumption of the year. Commerce—thanks to the security, encouragement, and facilities given to it by your government—will know how to supply food for the markets, and there will be no want of grain any where. But its price, temporarily increased, causes sufferings which touch your heart. To alleviate them you desire to multiply labor and relief throughout the land. By your orders I submit for the signature of your Majesty a decree opening a special credit of ten millions for this object. The assistance of the departments, of the communes, of private individuals, will double and treble, if necessary, this fund of provident benevolence, and the working classes will once more bless the incessant and paternal foresight of the Emperor for their sufferings and their wants. I am, with the most profound respect, sire, your very humble and very obedient servant, and faithful subject, the minister secretary of state for the interior." "BILLAULT."

The question is, how far can these supplies be furnished from this country, to meet the demands of Europe? Our readers are aware of our opinion upon this subject, expressed in each number of our

journal since the harvest was over, and all our subsequent accounts justify the conclusions at which we had arrived early in the season, that, the result has not been a full average orop, and that much wheat has been injured by the weather after it was cut. Complaints are now being made of the comparatively large amount of wheat introduced into the markets of an inferior character, caused by damage sustained since the harvest—for the quality of the berry was proverbial for its beauty at the time of cutting. We notice in the N. York papers that most of that received from Canada is of inferior descriptions, as also from the Northern section of the country—and our own market bears like evidence of the same nature. We cannot, therefore, we believe, supply the European market with any considerable quantity of grain without its telling with powerful effect on our own people. We wish not to aid in creating a panic, or to induce farmers to hold back their produce; we are as much opposed to speculation or monopoly on their part, as we are to that of merchants, but as faithful and conscientious journalists, we give our opinions for what they are worth, based as we believe they are upon reliable information, leaving to all interested in the subject to act for themselves.

By a late arrival from England, we have received the circular of a leading commercial house—in which is stated, that, "The Harvest may now be considered secured. In England, *Wheat is under an average.* In Scotland, Wheat and Oats are light. Accounts from Ireland report a light crop of Oats, but a very large and good one of Potatoes."

Other accounts represented the Potato crop in Ireland as quite deficient, and that a demand would consequently be made for our corn to supply that deficiency.

The N. Y. Post, after the arrival of the steamer Canada, remarked, on the markets of that city:

"In the produce markets there is a very great excitement, especially as to wheat and flour. The shipping demand is very large, and prices have a considerable upward tendency, so there is no prospect of a decline in prices. Among ship-owners there is a great bustle, and ship-builders both here and at the East, have received considerable orders for new ships. The cotton market is well supplied with the staple, and large sales continue to be made for shipment at the South."

The Express of the same city says:—

"We understand that an eminent shipping firm in South street have received orders to purchase 500,000 barrels of Flour for the British government. The French and British governments are early in the field as purchasers of Breadstuffs, no doubt intended to feed their armies in the Crimea, and save their home markets from being disturbed by large demands for such a purpose."

The New York Times says:—

"The Grain and Flour movement at present overshadows both the Stock and Cotton market. The transactions on the Corn Exchange since the arrival of the Steamer Pacific, last week, have been enormously large, and the excitement intense on Saturday and Monday. There was a calmer tone in the market to-day, caused by the temporary withdrawal of a leading Broker, who has been the heaviest buyer for English account. An agent of the British Government is said to be in town for the purchase of Flour for the army in the East, and to his orders the trade attribute the movement referred to. It is understood that Grinnell, Minturn & Co. act as principals to these purchases. There are a variety of buyers in the market for France. The Greek firms in this city were the earliest to move in Grain and Flour this season, and they have had their agents in Buffalo, Oswego, Chicago, &c., for four or five weeks past. They are among our strongest and shrewdest foreign merchants, and generally move together or in the same direction."

IMPORTATION OF COTSWOLD SHEEP.

Col. J. Ware, of Clarke Co. Va., whose public spirited efforts to improve the Sheep Husbandry of the country, have been eminently successful, has just received his annual importation of prize animals from the Show of the Royal Agricultural Society of England. We had an opportunity of seeing this splendid lot as they passed through our city to the residence of Col. W., and can thus speak of them from personal observation, as certainly unsurpassed, if equalled, by any previous importation. They had suffered somewhat on the voyage, and three of the ewes died after they arrived, but the others appeared to be in in good plight, and we hope will show themselves in all their pride at our exhibition. We have been permitted to take the following extract from letters and papers forwarded with these Sheep, which will give a better idea of their character, than any description we can give of them.

A letter from the Agent of Col. Ware, who selected these sheep for him, (in accordance with the usual instructions, for the best, without regard to price,) under date of August 13th, 1855, says:

"The prize shearling ram, that won the high prize of the Royal Agricultural Society of England, which I send you, you will find is an *extraordinary good* sheep. I also send you the 5 shearling ewes that won the second prize, and the 5 shearling ewes I send with the winners are capital good ones; and lastly, the 5 shearling rams I send you, are all of them good sheep."

The Farmer's Magazine, published in London, speaking of those that came to Col. Ware, remarks:

These shearling rams still keep their owner at the head of his class of long wool breeders, and this lot is a splendid sample of the breed. No. 476 has capital plaits, chine rather narrow, rump not wide, and wool rather light, but of fine proportions; 477 has a good form, a fine head, neck rather thin, plaits very good, chine and ribs well thrown out, breast full, back broad and fat, loin well covered, rump rather short, but broad, hips good, but thighs and flank light, wool fair—altogether a very fine sheep; 479, (winner of 1st prize, and came to Col. W.) is an *extraordinary* animal; he has a very large fine top, with a deep, well made frame, his depth through the chest being great, his girth being 5 feet, 1½ inches, his

chest, bosom and plaits, all right and full, back level, broad and flat, loin and rump good and broad, hips unusually wide and well covered, legs stand rather too near, and his chine is too high for a first class animal, thighs fair depth, flank good, wool heavy, and full fleece, but too straight in staple. He is a *splendid* animal, and *deserves* the first prize; 480 is a very good sheep, chine rather high, not bare, but capital mutton."

Of the ewes that came to the Colonel with the above bucks, the same Journal remarks, page 277, 1st column:

"Nos. 514 and 515.—These pens we think are of much better character, and truer to each other; they match exceedingly well, they are not so high standing as lot 509 probably, (that won first prize,) but more compact, and of better quality;—they prove well on examination. We characterise them thus, and we are not very careful to select the pen, but we will take pen 515, and give our notes, taken at the time:—five very nice ewes, with superior compact frames, broad back and loins, fat and firm, necks fair and countenances good, with plenty of good wool, and stand well and high. We like 515 better than 514, which received the second prize."

Importation of Alderney Cattle.—William C. Wilson, Esq., of Springdale, Baltimore County, has recently imported two thorough bred Alderney Cows, which have arrived safely at his farm near this city. We paid a visit to Springdale, during the past month, and had an opportunity of examining his herd of this favorite milking breed of cattle, of which he has some 12 or 15 head—among them his recent importation, which had recovered from the fatigue and confinement of their voyage. They were selected from the best herd in the Island of Jersey, through the influence of John A. Tainter, Esq. of Hartford, Conn., and are believed to be unsurpassed in all the points of this breed of cattle, by any that have ever reached this country. They will be exhibited at our coming State Show, with the bull of the same breed, (purchased of J. H. M'Henry, Esq., of this city,) which was got in Jersey, and is out of Mr. M'Henry's imported Cow Commerce. These cows cost about $500 for the two, delivered in this city; but twice that sum would not induce the present owner to part with them, satisfied, as he is, that they are as near the marks of perfection established by the rules of the Royal Agricultural Society of England, as it is possible to attain.

Devons.—We had the opportunity of inspecting a lot of beautiful young Devons, the property of T. W. Stonestreet, to whose advertisement we call attention. Mr. S. is taking them to the Agricultural Exhibition at Petersburg, where they will no doubt be duly appreciated. He assures us that his selection of stock is from some of the best herds of the country, and their appearance gives evidence of their *good breeding*.

Prof. Morfit's Letter, and the Editorial Comments.

The October No. of the American Farmer contains a letter from Prof. Morfit to the President of the Maryland State Agricultural Society, explanatory of his action as a member of the Committee on "Formula, &c." in which the learned Professor declares that no formula, however explicit, could be adapted to the capacity of the uninitiated. This view is certainly correct, and undoubtedly that of every professional chemist on this subject. There can possibly no formula be given for Soil Analysis, which, whilst being simply read by the farmer, would furnish to him any desired information about the character of special soils. Every formula, however simple, will require the execution of certain manipulations, as well as the constant consultation of a knowledge of chemical principles—and neither of them can be performed by any one "unused to the atmosphere of a Laboratory."

When I attempted to design a formula for Soil Analysis, it was for the double purpose of—1st, establishing a method which was in all its parts correct, and which, secondly, distinguished itself by simplicity. In this way the formula could be expected to become a favorite among professional Chemists, and the results they obtained from it, were both reliable and corresponding—two factors which would render the practice of analysing soils of the greatest use to farmers.

The fact is, that I had never an idea of giving "a formula for the use of farmers," but this being the literal sense of the terms of the Society, I liberally interpreted it into "a formula of the greatest use to farmers," not believing that farmers could be much pleased by saving $10, in doing a work themselves to which they are not at all accustomed, *nor that the practice of analysing soils, among Farmers, would, in the least, promote the interests of Agriculture.*

The performance of chemical analyses, is in no way an application of Chemistry to Agriculture; it is nothing but a branch of Chemistry, and as a job, must, (like all other jobs,) be left exclusively to a class of professional men. But no sooner than the results of analyses are obtained, both Chemists and practical Farmers have to unite, in order to apply these results successfully to agriculture; here, and not before, the assistance of the practical farmer is needed, and to make it most useful, required from him *that he understands to read the results of analysis, and to become aware of their relation to Agriculture;* an accomplishment which should be the sole object of a chemical training, as a part of the educational course of farmers.

Reasoning from these views, every reader of the "American Farmer" may judge for himself to what extent the editorial comments upon Prof. Morfit's letter accord with them, and also with the very spirit of this letter itself. In these comments the editors take the propriety of styling my Essay, "an Essay on the subject of a Formula, for the use of Farmers, for the Analysis of Soils," and thus expose me as having attempted such a work—just the thing which Prof. Morfit ridicules in his letter for being impracticable, and to which the editors add themselves, "at which conclusion we have not but recently arrived ourselves," and then continue to say:

"That his, (Prof. Morfit's) assent was given to this Essay, because, in his opinion, it was the *best*," viz: (in the editors' sense,)—the best of two, or

several impracticable, all of which deserved but little faith.

As to the first mistake, I can say nothing, but that the true title of my Essay is that by which it is headed, viz: "An Essay on the Analysis of Soils, with a Formula for the same, as founded on the relations between Soils and Plants."

As to the second point, it must be remembered that Prof. Morfit's letter originates in the fact of himself having decided in favor of a Formula which was not intended for the use of farmers. Only upon this ground he could speak of the merits of this Essay, and actually gave his assent to it, because it was complete and simple. That this Essay was, at the same time, the "best," was quite irrelevant; it had no other effect than that of securing the Prize. In the editors' sense, on the other side, the assent was given to this Essay because it was the "best;" but the best Essay of two may be, indeed, a very bad one; and, in the editors' sense, the Essay in question is actually the best of all those which deserve little faith.

The Messrs. Editors, who I am sure have not done intentional injustice by their comments, will do me justice by admitting this explanation in their paper.

CHARLES BICKELL.

We had no design in our remarks to disparage in any degree the Essay of Dr. Bickell, as regards its "intrinsic merits for completeness and simplicity." Professor Morfit's opinion, in which we expressed our concurrence, was that no such formula, whatever its value, is applicable for the purpose aimed at by the Society. This view Dr. Bickell affirms, by saying that he never had an idea of writing an "Essay for the use of Farmers."

As to our giving his Essay an incorrect title, we have only to say, that we did not design to give the Essay its precise style as it appears at its head.—Had that been the case, the title would have been enclosed in quotation marks. The title was in fact written by the Doctor, (the proof having been left blank for the purpose,) after our remarks were written. Our mistake was in supposing that an Essay competing for the Society's premium, had reference to the purpose designated by the Society. Therefore we spoke of it as an "Essay for the use of Farmers," &c.—*Eds.*

PISCATAWAY, Sept. 20th, 1855.

To the Editors of the American Farmer.

This has been the most difficult year for farming that I have ever known, requiring more activity, energy, care and judgment, to make and preserve crops, than any other year since I have been farming, (1830;)—but at the same time it is one of the most prolific. The wheat is good in quality, and a full average—oats good—tobacco a full average; but the planting not so large as I have seen it.—Corn, very fine, and every kind of garden vegetable in abundance. I am convinced that the views you have taken as to the prices of grain, are substantially correct. The product will be a full average, but nothing more, except corn, but the demand will be larger than usual, even if the European war should cease. The old stock was so nearly exhausted, that the new one will be largely used much sooner than usual. One other reason: The agricultural population, in consequence of the high price of labor, has not increased in proportion to other classes—therefore, there are more persons to feed, in proportion to producers, than formerly, and of course prices will be sustained; and if the European war continue, will rule very high, and if it should not, the prices will be good.

Since writing the above, I learn from a gentleman residing in the great Tobacco region of the County, that the Tobacco crop here will be below an average. The land there is generally a light soil, and all such lands have in fact failed this season for all crops—a consequence of the excessive rains. In the Potomac region, our lands are more compact or stiff, and have suffered less.

B. I. SEMMES.

To the Editors of the American Farmer:

Enclosed you will find one dollar for my subscription to the current volume of the American Farmer, which I always read with much pleasure. Being under the necessity of furnishing food for a cow here from a very limited piece of land, I have tried the two kinds of Guinea grass, Indian corn drilled, and millet, and have found that the two last will furnish more green food per acre than the two former, especially in a dry season. Drilled corn will afford much more food in a short time, but as it will stand only one cutting, the millet will furnish the most food during the season, as it will stand repeated cuttings. I would therefore recommend a combination of the three; the Guinea, which is propagated from stools or roots, for a very early crop, drilled corn for the next crop, and millet for the balance of the season. I have grown the Dourra Corn or Egyptian Millet with much satisfaction. It was sown early in March, upon well manured land, and was fit to cut dry before the middle of July, and has continued to ripen several crops in succession ever since. When sown on rich land, it will produce 2 to to 3 times as much grain as Indian Corn, but when sown late, say in May, it will mature only one crop of heads. The flour or meal makes excellent and very palatable breakfast cakes. I am surprised that where milk is a great consideration, milch cows are not spayed, as it increases the quantity, as well as prolongs the time of giving milk. It is no harder operation than to spay a sow, and much the same. I have never failed once in the few attempts I have had made. I lately ordered a vicious and breachy cow to be spayed, and my cattle man reports greater docility, as well as increased quantity of milk, as the result already.

Your old subscriber,

ROBERT CHISOLM.

ANOTHER MARKET ESTABLISHED IN ANNE ARUNDEL CO.—We refer to the proceedings of the meeting of the farmers of West River, by which it will be seen, that the example of their brethren of Crownsville, in same county, has been followed, by the establishment of a regular market, on fixed days, for the sale of surplus produce. We recommend these efforts to the attention of the butchers and produce dealers of our city.

We acknowledge the receipt of a Copy of the United States Coast Survey for Editors of *American Farmer*, and Copies of Patent office Report for 1854, for members of Md. State Agricultural Society.

THE GRAIN CROP OF EUROPE.

The advices by the Pacific Steamer, which arrived about 1st of October, presented a very gloomy prospect for the nations of Europe, in regard to their supplies of food, and proves beyond any peradventure, the great demand which will be made for all the surplus products of the United States. The Baltimore American, in introducing the annexed article from the *London Times*, (the leading journal of Europe,) says:

"The commercial and monetary advices by this steamer are important. The advices from Paris indicate a large demand from that quarter for our cereal products. The French Government have published an article in the Moniteur, in which it is stated that the French Wheat harvest falls short of an average by seven millions hectolitres, the difference between 82 and 73. The deficiency is rather more than two millions English quarters—about seventeen million bushels. The London Times Paris correspondent says that France will probably have to expend something like five millions sterling on foreign corn. Exportation is forbidden, and the temporary law by which the ports are open for food of all descriptions is prolonged to the end of next year. In order to alleviate the distress occasioned by dear provisions, public works will be kept up, and industry encouraged by all possible means. The Paris Constitutional admits that not only two-thirds of the wine is lost, but the apples and pears for cider and perry are gone, and honey, by which another substitute for wine used to be made in the shape of hydromel, is more than usually scarce. Thus the Government, through its organs, states the prospects of the country as regards the food and drink of the people to be gloomy enough to require the exercise of patience, prudence and forbearance. We copy from the London Times of the 22d ult., an important editorial on the commercial and monetary condition of Western Europe, in which it points out the fact of a failure of the crops, which prove below an average in all the south of Europe, besides France, and that there will be large outgoings from London of money and coin from England for wheat: of which the English crop is below the large one of 1854—while stocks are much reduced."

From the London Times, Sept. 22d.

THE MONETARY AND COMMERCIAL RELATIONS OF WESTERN EUROPE.

It is not to be denied that in the midst of the triumphant successes of the last few days on the theatre of war the public exultation is somewhat checked by symptoms of pressure on the monetary and commercial relations of Western Europe, which reminds us that the sacrifices of war are not confined to the precincts of the camp or the ranks of armies. This pressure is, moreover, increased by circumstances which are but indirectly connected with the present state of hostilities, though it is rendered more sensible by the additional burdens thrown at this time on the public resources. There is no doubt that in France, and in most of the countries of central and Southern Europe, the late harvest has been below the average, and that in this country it falls short of the extraordinary and bountiful harvest of 1854. The prices of corn and of almost all the first necessaries of life are, therefore, very high, and higher in proportion in most parts of the continent than in this country. In France the failure of the vine, from the disease which has infected most wine growing countries for several years, is an immense addition to the prevailing distress, not only because it has raised the prices of the ordinary sorts of wine to an excessive height and so deprived the common people of their habitual beverage, but also because it has exposed the peasantry of a very large part of the empire to the loss of their principal crop. Under these circumstances, considerable uneasiness exists in many parts of France as to the means of providing adequate subsistence for the people during the ensuing year, and it is evident that some extraordinary efforts will be required of the Government to enable the population to pass through a period of scarcity. In this country the mechanism of the Poor Law adjusts itself to these circumstances; the legal demand of the poor for relief is increased; the poor rates rise till the additional demand is supplied by increased taxation; and we have the certainty that the necessities of the lower classes of society will be provided for at the expense of the community. But in France no Poor Law exists; there is no established legal provision for the relief of distress, and these emergencies must be met by the direct interference of the State. As the wealth and population of the country increase it is probable that this state of things cannot last, and perhaps one of the institutions which the Imperial Government may be led to engraft upon the present social condition of France is a more regular and liberal scale of allowance to the poor.

The Moniteur yesterday published an official article which deserves attention from the frank acknowledgment it contains of the extreme importance of the subject, and from the sound principles of political economy to which it pays a somewhat tardy homage. About two years ago, upon the occurrence of the deficient harvest of 1853, the French Government adopted a different system, and it may be in the recollection of some of our readers that we protested at that time with some warmth against the absurdity of condemning the bakers of Paris to sell their bread at a fixed legal price, which was acknowledged to be below the price of the article, while the municipal funds of the city of Paris were to indemnify the bakers for this sacrifice. The plan was, however, tried, and the citizens of Paris continued to eat cheap bread during a period of scarcity at the expense of the corporation, or rather at their own expense, since the loss had to be supplied by some other form of taxation. We know not how long the experiment lasted, but we are happy to find that it is not to be renewed; and the Moniteur now lays down with authority the principles for which we contended on the former occasion. The public in France are told that all artificial attempts to lower the price of corn, or to establish a *maximum* of value, can only be attended with absurd and injurious results, and that confidence in the freedom of exchanges is the only basis of commercial prosperity, and consequently of abundance.

The deficiency in the wheat harvest of France is estimated at about 7,000,000 hectolitres, or rather more than 2,000,000 quarters. The question is from what source can this quantity of grain be most conveniently supplied? but, as the Moniteur justly observes, in order that foreign supplies should be introduced into the country, it is necessary that the price should be and remain high. In

the north of Europe the harvest has been short, and the corn trade with the most productive corn districts, of the south and east is obstructed by the war. But the American harvest has been splendid; an unusually great breadth of land has been under wheat this year, and the crops have been successfully got in. The available surplus of wheat is estimated at about 5,000,000 quarters from United States and Canada—a quantity which is more than sufficient to cover twice the alleged deficiency in France. Of this quantity it is stated that half will be shipped for Europe between the 1st of September and the 1st of May; and we have reason to believe that very large orders have already been transmitted to the other side of the Atlantic for the French market.

Although the blockade of the southern ports of Russia, and especially of the Sea of Azoff, cuts off the supplies from an extensive and fertile district, we see no reason to doubt that measures may still be taken to open the navigation of the Danube and the corn trade of the Principalities. No part of the world produces a greater abundance of the finest grain, and the harvest of the past summer was so abundant as to compensate the inhabitants for the sufferings and losses attending the invasion of the previous year. Had vigorous measures been taken by the allied governments, even so late as last June, to reconstitute a rational government in the Principalities, and to re-open the navigation of the Danube, which is checked on one or two insignificant points by the enemy, we should ere this not only have acccomplished another important object of our political intervention in the East, but we should reap immediate commercial advantages from the emancipation of the Danubian provinces. As long as Russia continues to obstruct the Bessarabian shore of the Danube, the results of her recent invasion are not entirely removed, and there is no ground whatever on which she can claim to prevent the trade of neutral ships with the Principalities. This question becomes one of European interest and it is a point on which the Western Powers and Turkey are entitled to require the active co-operation of the Austrian Government, as that Power is in occupation of the country.

We entertain no doubt that, although the prices of grain will probably remain considerably above the average during the present year, those prices will command an ample supply for the deficiency of corn which may exist in the west of Europe and in some parts of Germany. But the effect of large purchases of corn and of large and constant remittances to the East for the wants of the army and the varied expenditure of the war must inevitably be felt upon the money-market, both in London and in Paris; hence the banks of England and of France have acted wisely in applying the necessary check to the discount of paper; and it will better enable us to sustain the efforts necessary to bring this contest to an honorable conclusion if we take in sail at a moment which must be one of some difficulty, though, from the healthy nature of our commercial relations, we do not believe it to be one of danger. In France the case is somewhat different, for some singular financial experiments have been tried within the last three years in that country, which all appear to rest upon the assumption that credit can be permanently substituted for capital. These operations have not only embraced a vast quantity of transactions in France, but have even included a vast system of relief to the finances of Austria. We can only repeat that the present time is singularly ill-adapted to such hazardous flights, and that neither the aspect of public affairs nor the course of the seasons is favorable to them. We should deeply deplore, and we do not anticipate, any sudden shock to the unlimited credit the present French Government has hitherto enjoyed, but the prices of the public securities, even since the fall of Sebastopol, and the avowal of a deficient harvest by the principal organ of the French Government, are strong inducements to act with great caution, both in the financial operations of States and in those of private traders.

FRANCE.—The corn question is described as assuming a very serious aspect. Since the rise in bread on Sunday last there has been considerable agitation in many quarters of Paris, and it is thought that the government will feel it necessary to go back to the old tariff, and to continue, at whatever sacrifices, to make up the difference to the bakers. According to the Times' correspondent, a project is spoken of for an additional centime on several indirect taxes to provide a fund for the purpose.

THE CROPS IN EUROPE.—The foreign and commercial journals comment with an earnestness which shows their appreciation of the high importance of the subject upon the confessed shortness of the European crops. The Mark Lane Express admits as the conclusion it is obliged to come to, from all its sources of information, that there will certainly be nothing to spare; but that rather a large vacuum will be required to be filled up by foreign importations, especially of wheat. The fall of Sebastopol, it fears, will not be likely to form a prelude to pacific negotiations with Russia; but the pride of that power may make a trust-worthy and honorable treaty difficult and distant, and the large supplies by the occupation of the allies will prevent a ready and free shipment of the stores at hand. The London Economist says that there can be little doubt that, so far as regards the different countries in Europe, the wheat crop has not realized the expectations formed two months ago; and that, as a whole, it is far from being equal to the crop of 1854. On the other hand, the deficiency, taken by itself it thinks is not such as at first sight would appear to justify the rapid and considerable rise of prices which had recently taken place in the markets of Paris and London, and, sympathising with them, in the inferior and local markets of the west of Europe. The cause of this rise it finds in the following circumstances:

"The crops of 1854 may be stated to have generally been above an average, especially as regards Wheat, in this country, in France, Belgium, and a great part of Germany; but, nevertheless, the demand for the Mediterranean and the exhausted condition of the stocks everywhere, following the bad harvest of 1853, prevented that fall of prices which might otherwise have been looked for. But, notwithstanding the largeness of the crop of 1854, it is now a matter beyond any doubt, that the stocks in the West of Europe, and especially in France and Belgium, at the commencement of the late harvest, were not larger than they were in 1854. This fact, unexpected as it may have been, is satisfactorily accounted for by several considerations—some apply to all countries alike, others specially to particular countries."

It has become an established fact, that, notwithstanding the greatly increased production of wheat in Great Britain, the consumption has increased in a so much greater increased ratio that the United Kingdom does not produce *in any year enough for its own consumption*. Ten years ago it was only in years of failure that foreign corn came in aid of home deficiency. Now, the consumption being so much increased as to require every year some foreign corn, the price of that grown in Great Britain is determined not alone by the character of the home crops, but in a great degree, by the extent of the importations. On this point the Economist says:

"Thus, though the crop at home was so large in 1854, yet as the importations from abroad immediately fell off, the deficiency in the one supply appeared to make up for the excess in the other, and prices were not, therefore, materially altered. From the beginning of August, 1853, to the same date in 1854, there were imported 6,067,975 qrs. of wheat and 4,882,056 cwts. of flour; while from the beginning of August, 1854, to the corresponding date in the present year, the importation of wheat amounted only to 2,335,431 qrs., and of flour to 1,588,892 cwts. Thus we find that in aid of the harvest of 1854, as compared with that of 1853, we have received of foreign supplies less of wheat by 2,732,544 qrs. and of flour by 3,293,164 cwts.—a quantity of wheat and flour which, by ordinary computation, would be equal to the maintenance of more than *three millions of the population*. This statement of facts, derived from official returns, at once explains why the large crop of 1854 did not produce a greater effect upon prices, and why it appears to have left us with little or no more old wheat on hand than we had a year ago; for it shows that if the home crop was so much better the foreign supplies were less by nearly four millions of quarters than in the preceding year. We have in these computations adopted the years."

Of the crop of the present year the Economist says:

"With regard to the crop of the present year, whatever may have been anticipated at one time, it is now, we fear, fully admitted on all hands, and with too much truth, to fall short of that of last year, and in some districts very considerably short. On the whole, even taking into account the most favored districts, it is no longer doubted that the result of the harvest is below an average. Future prices must therefore depend upon the extent of the supplies which we receive from abroad. If they are not greater than those which we have received during the last twelve months, we must look for the present price being at least maintained. In this respect, so far as regards the continent of Europe, we must be prepared to expect rather a decrease in the imports than an increase. In France the wheat crop is more deficient than it is in this country, and the consumption has relatively increased as much of late years. In place, then, of any surplus export, the French are at this time importers of wheat, and will continue to be so all the year. The countries bordering on the Mediterranean have for many years past derived large supplies from the Russian ports in the Black Sea. They depended upon that source long before it was resorted to by England and France. This supply has been cut off for a great part of last year, and is likely to be so for some time to come. Those countries are, therefore, likely to be importers from the West rather than exporters. The crops in the south of Russia, if, under present circumstances, they can exert any influence at all, are extremely defective, especially of rye and oats. In Austria, a government return, just published, states that the grain crops are an average, and no apprehension is entertained of deficiency. In northern Germany, however, the crops of all kinds are less or more deficient, and they are already importing grain both from neighboring countries in Europe and from the United States. In Belgium the wheat crop is represented as being good, but the rye crop, which constitutes the chief food of the population, is very short. Spain is the only country in Europe which seems to have any excess of grain available for exportation, the greatest portion of which will be taken by France and the Mediterranean States."

From this gloomy view of the crop prospects of Europe the Economist turns to America as the source from whence the chief supply to make up the deficiency will have to be drawn, and thinks the accounts received from here, if not greatly exaggerated, are well qualified to modify anxiety. —*Baltimore American.*

WORK IN THE GARDEN.

NOVEMBER.

Turnips, Beets, Carrots, &c.

These and all other roots should be taken up and carefully stowed away, before the hard frosts set in.

Lettuce Plants.

Lettuce plants in frames should be aired every mild clear day.

Garlic, Shallots, Chives.

These, and all kindred vegetables, should be planted out early this month.

Cabbages.

Have your cabbages taken up and stored away before they become injured by frosts.

Cauliflowers—Broccoli.

The leaves of these should be broken down over the flowers, to protect them.

Celery, Cardoons, Endives.

See to it that your gardener attends to the blanching of these in the early part of this month.

Sea-Kale and Rhubarb.

Sow the seed of these in the early part of this month.

Artichokes.

Have your artichokes dressed for winter.

Small Sallading.

Small Salladings of all kinds should now be sown in hot-beds.

Trenching of Stiff Clay Beds.

If you have any stiff clay beds in your garden, trench them up two spades deep, give them a dressing of lime or ashes. The lime will be the better for being freshly slaked, and the ashes for being unslaked—or you may give a mixture of lime and ashes, in equal quantities.

Spinach.

Keep your winter spinach free from weeds. If the plants are too thick, thin them out to stand 4

inches apart in the rows. Do this in the first week of this month, to enable the plants to strengthen themselves to endure the winter's frosts.

ASPARAGUS BEDS.

If you have thus far neglected to dress your asparagus beds, do so the beginning of this month, as we advised last month.

GOOSEBERRIES—CURRANTS.

The early part of this month is a good time to prune and plant out gooseberry and currant cuttings.

RASPBERRIES.

As long as the weather continues open, new plantations of Raspberries may be made, but the earlier in this month that the work is done, the better, especially for the Antwerp varieties.

FLORICULTURE—FOR OCTOBER.

Prepared for the American Farmer, by John Feast, Florist.

By this time all tender plants will be fixed in their winter quarters, and nothing more will be required than to be careful in watering, as the foliage is often injured and falls off, if sufficient water is not given them. As plants are at times put in the house without repotting, after the roots begin growing through the pots, if time will permit, they should be repotted in a larger pot, with plenty of drainage, and plenty of air given every opportunity, by opening the sashes, or other ventilation. Hardier plants are kept better; unless intended for forcing to bloom earlier, avoid giving artificial heat as much as possible; but keep out the damp and do not crowd the plants too much, if fine specimens are wanted, for they seldom do well when thickly set, and make but tall, unsightly specimens; if any require cutting down, head them in, so that they will make with care fine bushy plants. By attending to raking off all the weak lateral shoots, and pinching off the leading ones in order, the side ones being thrown out more strong, in this mode fine specimens of plants can be obtained.

Dahlias, if cut with the frost, take up and put in some proper place for the winter, with the names attached to each variety.

Chrysanthemums in pots require plenty of water to make a fine bloom; a little liquid manure will be of advantage to them; give plenty of air, and fumigate, if any appearance of fly; tie up those out of doors, for fear of being broken by the wind.

Cammelias will be coming in bloom; give due attention to watering, and syringe occasionally, to prevent the appearance of the red spider, which causes the plants to look in bad health; the seeds may be sown in pots or boxes, in a soil suitable to the plants.

Geraniums head down; be sparing in watering, until the foliage has grown strong; pot off all that require larger pots, and cuttings that are rooted, pot off in small pots of proper size.

Greenhouse and flowering bulbs will begin to grow and come in flower; they should be placed near the glass, and in as dry a place as possible, for by too much moisture the foliage is often injured, and the beauty of the foliage and the bloom destroyed.

Cinerarias, Calceolarias, and all soft wooded plants for flowering in Spring, repot in larger pots, as they require it.

Fuchias will do well if put in any dry place till the time of repotting in Spring, and give more room for such plants as flower through the winter.

Bulbous roots, both tender and such as have bloomed through the Summer, may be put in some dry place till Spring, and hardy bulbs plant out in the borders, if they are ready to plant them in.

Cuttings of all hardy flowering plants, as roses, and Verbenas, take care of all the varieties, by roots or cuttings.

Plants such as Violets, Daisies, Polyanthus, Pinks, Carnations, placed in a cold frame, if protected, do as well, or better, than in the house, and flower much better without artificial heat.

Transplant all kinds of hardy plants or Evergreens as long as the weather keeps open. It is good time for planting Box, or making walks or borders, and the laying off Grass Plots, or Lawns.

NEW CASTLE CO. (DEL.) AGRICULTURAL SOCIETY.—At the Annual Meeting of the New Castle Co. Agricultural Society, held at Allmond's Hotel, on Thursday, October 18th, 1855, T. J. Adams, Esq. was appointed Chairman, and Geo. Pepper Norris, Secretary.

The minutes of the last meeting were read and approved.

The Corresponding Secretary called the attention of the Society to some extracts from a letter of Lieut. Maury, that appeared in the Delaware State Journal, in relation to the policy of establishing a uniform system of meteorological observations for the land, as has been done for the sea. He advocated the establishment of such an office as was proposed by Lieutenant Maury, and thought that the benefits resulting therefrom to the farmer, would be incalculable. He concluded by making a motion for the appointment of a committee to present to Congress at its next meeting, through the Representative, a memorial of the New Castle County Agricultural Society, praying for an appropriation to be devoted to that purpose.

Hon. John Wales, Thomas M. Rodney and G. P. Norris, were appointed by the Chairman.

On motion of Hon. John Wales, the Corresponding Secretary was directed to notify the Kent Co. Agricultural Society of the appointment of such a committee, and to invite them to join the New Castle County Society in the presentation of the memorial.

VALUABLE FARMS FOR SALE.—A valuable tract of Land in Baltimore Co. is advertised by Mr. D. H. Leche, in this number, and at a low price, the way land is selling in this vicinity at present.

Mr. A. H. H. Bernard, of Fredericksburg, Va., also advertises a Tract of Land that is worthy the attention of farmers from the north, and others, wishing to invest in improving locations.

The large Tract in the vicinity of this city, advertised by Mr. W. W. Glenn, for sale on the 1st of November, at the Exchange, in this city, presents attractions of no ordinary character. We had occasion, a few weeks ago, to examine these lands, and have no hesitation in saying, that they are most admirably located for, and the soil very generally adapted to, the cultivation of fruits and vegetables, and the proximity to our city market, both by land and water, renders them peculiarly desirable for these purposes. A fine field for investment is here presented to the industrious farmer, or to the man of capital.

Mr. H. H. Goldsborough, also advertises for sale a Tract of Land in Talbot County, to which we refer those desirous of purchasing in that beautiful section of our State.

From the Baltimore American.

INTERESTING TO STOCK RAISERS.

Maryland Institute Fair.—The attraction afforded by the Fair at the hall of Maryland Institute is still unabated, the spacious rooms being well filled throughout the day and perfectly thronged at night, at which latter time a large majority are ladies. Among the new inventions which attracts the notice of visiters, is Maynard's Spiral Corn and Cob Crusher, deposited by Messrs. R. Sinclair, Jr. & Co. It is made of cast iron, and is constructed with horizontal roller with wrought iron teeth in the bottom of the hopper. The corn falls upon this, and by its revolutions is broken in small pieces, and falling through is taken up by a screw cylinder, around which it passes against the concave frame of the mill, thus grinding it perfectly. It is specially adapted for mill purposes when water or steam power is used, though it may be worked by two to four horses. It will crush from twelve to fifteen bushels of corn per hour, and requires no other attention than to be kept well fed. The invention is entirely new and was never before exhibited.

Messrs. R. Sinclair, Jr. & Co. have also on exhibition their celebrated Screw Propeller Straw or Hay Cutter. This machine has a cast iron feed roller forming a screw, with right and left fins, which conveys the food from the box to the knife. It has two spiral knives working against a steel bed and plate, by which the hay is cut with great rapidity. It is of simple construction and not liable to get out of order, and it is claimed that it will do more work than any similar machine. It is equally good for hay, cornstalks, or fodder, and the various sizes of it made, adapts it either to hand, horse or steam power.

The same parties have also deposited Maynard's Champion Corn and Cob Mill which has won the approbation of all who have seen it. It consists of a spiral cone set with grooved teeth, which gives a much larger grinding surface than possessed by machines without them. These teeth play into a thread screw on the concave, covering thus requiring that all the corn shall pass entirely around the cone. It is managed by a single screw in the centre of the bottom, which acts upon the interior spindle of the cone, thus enabling the operator to set the mill to grind to any required size. From the top of the cone protrudes a grooved shaft upon which fits a lever with arm about ten feet long. This machine requires the power of but one horse by which from six to eight bushels per hour can be crushed. It is more especially adapted to the use of the farm, and requiring but little room can be covered when out of use by a hogshead to shield it from the weather. It stands upon three cast iron legs, which are secured by a shoulder with three jogs and a wrought iron bolt. This also is an entirely new invention, and is highly commended by those who have used them. nov. 1.

BLENHEIM, NEAR CARTER'S BRIDGE P. O., }
Albemarle Co., Va., Oct. 5, 1855. }

Messrs. Robbins & Bibb, Baltimore.

GENTLEMEN:—I mentioned to you, when in your Manufactory last year, that I would give my opinion of the LITTLE GIANT CORN & COB CRUSHER, after I had made a fair trial of the one sent me,—this I now proceed to do, as an act of justice to all interested in its success. I have had it in operation a year, and find it quite equal to my anticipations, if not beyond them. With two mules, it will crush well, upwards of 15 bushels of corn on the ears in the hour, easy work. If needful it might be made to reach 18. It adds *one-fifth to the amount of food*, to say nothing of the toll saved for grinding at a neighboring mill, four miles off, and the services of a man and pair of oxen one entire day each trip. Indeed, I can safely say, that it has saved me in the last twelve months, *four-fold its cost*, with corn at $5 and $6 a bushel, sold for in this neighborhood. I intended getting a machine to *crush Guano* this fall, but was disappointed, and I made an experiment with the Little Giant, and found it to answer admirably. With one horse, it ground or crushed 15 to 20 bushels in the hour, and did it well. I shall of course save the price of a crusher. Upon the whole, I regard it as a most efficient and valuable machine, and with pleasure add my testimony in its favor. How long it will last, is to be proved.

Very respectfully, your ob't serv't,
nov1 A. STEVENSON.

PORTABLE STEAM ENGINE—The undersigned having invented a STEAM PORTABLE ENGINE, of 10 horse power, which they intend to exhibit at the approaching FAIR of the Maryland State Agricultural Society.—This Engine is portable in the broadest sense of the term. The Engine, Smoke Stack and Governor Valve, is fixed upon the Boiler, while the whole is mounted upon a substantial pair of wooden wheels, with broad tires, suitable to travel over ordinary roads, or through woods. It can be hauled with ease by four horses, and is admirably adapted for farm or plantation purposes, as it can readily be transported from any one part of a farm to another—to the field to thrash out grain, or the barn for like purposes—to the woods as the motive power for sawing lumber, or can be employed for any other use requiring steam power. By an ingenious contrivance, all the sparks are consumed before they reach the top of the smoke stack, so that all danger of fire from this cause is guarded against.

GEORGE PAGE & CO.
nov1 Schroeder, near Baltimore St.

OSAGE ORANGE HEDGE.—Prepare for Spring of '56. The undersigned having made arrangements with the extensive Hedging Company (McGrew, Lease & Co., Dayton, Ohio, and Kankakee, Illinois,) is prepared to furnish SEEDS, PLANTS, and to do HEDGING by contract on reasonable terms in any part of Pennsylvania, New York, New Jersey, Delaware, Maryland, and Virginia.

Any communication addressed to the undersigned will be promptly attended to. A. HARSHBARGER,
nov1-2t* McVeytown, Mifflin County, Pa.

ALEXANDRIA FEMALE SEMINARY.

THIS Institution is pleasantly situated in the city of Alexandria, Va. The Buildings are large and conveniently arranged, and in every way well adapted to the purposes of a Female Seminary. There is a pleasant yard attached to the premises, in which the pupils can exercise freely in the open air.

The School is under the immediate care and management of the Principal, who devotes his undivided attention to it.

All the branches constituting a complete English course, including Composition, Natural Philosophy, Chemistry, Physiology, Astronomy, and various branches of Mathematics, are specially attended to. An accomplished French lady, who resides in the Institution, has charge of the class in French. ☞Music is also taught by a proficient teacher.

☞COURSES OF LECTURES, fully illustrated by a handsome apparatus, are delivered to the pupils during the Session, upon Natural Philosophy, Chemistry and Astronomy. The Apparatus is also freely used during the recitations.

A superior Achromatic Table Telescope has been recently added to the collection, which affords the pupils a good opportunity of examining the Moon and Planets, and other objects of interest.

☞The charge for Board, Lodging, Washing, Tuition, Fuel and Lights, is forty-five dollars per quarter; Music seventeen, and French and Drawing, each five dollars per quarter.

From the above statement, a pretty correct idea can be formed of the character of the School, but if additional information is desired, it can be obtained by applying to
nov 1 JAS. S. HALLOWELL, Principal.

NOTICE.

THE PRICE of MAYNARD'S CHAMPION CORN AND COB MILL, manufactured by R. Sinclair, Jr. & Co., as noticed in our last number, should have been priced at $45 and $50, instead of $40 and $45, as stated. nov 1-1t

TRUSTEE'S SALE.—The undersigned, Trustee, will offer at public sale, at 2 o'clock, P. M., on TUESDAY, the 20th day of November, 1855, at the Court House door, in the town of Easton, the REAL ESTATE of which the late Jno. H. Clough, died, seized and possessed, consisting of a FARM in Bailey's Neck, in this county.

This Farm contains about 172 ACRES OF LAND, and is located in one of the most delightful necks in this county, distinguished for its spirit of improvement, as well as the hospitable character of its inhabitants. The soil, naturally of a fine quality, was highly improved by its former owner, one of the most experienced and scientific farmers of our county. The Orchards are of the best fruit, and the Dwelling House and other Buildings in good condition.

It possesses all the advantages of a beautiful, healthy water situation, being mostly surrounded by Trippe and Tread Haven Creeks, immediately on the latter, where steamboats pass to and from Baltimore and Easton, three times a week, within a few miles of Oxford, where boats pass almost every day in the week, and also within a few miles of our contemplated railroad, whichever route should be adopted.

This Farm has been and is now one of the most productive in our country, and is well worthy the attention of purchasers, possessing many advantages other than those enumerated.

The tenant, Mr. Ridgaway Dean, will show the premises to any one who may desire to purchase.

The terms of sale are as follows:—The rents will be reserved until the 1st day of January next. One-fourth of the purchase money will be required in cash, and the balance in one, two, or three years, in equal instalments, with approved security and interest from the day of sale.

HENRY H. GOLDSBOROUGH,
nov 1-1t Trustee.

FARM FOR SALE.—I am authorized to sell the FARM on which I live, in *Montgomery County, Md.*, six miles above Rockville, near the Frederick road; said farm containing upwards of **400 Acres.** The neighborhood is a select one, and the lands about, as well as the farm itself, are in an improved and thriving condition. The location is exceedingly healthy; there is near the house a never-failing Spring of excellent water; the place is well fenced, well watered, and contains about 100 *Acres of prime Wood Land*, the wood consisting principally of Oak, Hickory and Chesnut. Included with the farm, will be sold the most of the Stock, Products, &c., and all the Farming Utensils. TERMS, $25 PER ACRE. For further particulars, address DR. GEO. A. DYER,
novl-tf Forest Oak P. O., Montgomery County, Md.

WARNER'S PATENT SUCTION, FORCING, AND ANTI-FREEZING PREMIUM PUMP.

This is the most simple, durable, powerful, and cheapest Pump in use. It forces the water from deep wells into Bath Rooms, Spring Houses, Barns, &c., and by using hose will abundantly water gardens and lawns. ☞The Pump can be seen at any time in operation at 22 Second Street.
no.6t R. MIDDLETON, 22 Second-st. Balt., Md.

FOR SALE.—The full bred Ayreshire Bull SCOTLAND, sired by Geordie, from an imported Cow selected near the town of Ayre, in Ayreshire.—Scotland is about seven years of age, and has taken the first premium twice at the Maryland Cattle Show. Enquire of the American Farmer.

BEAUTIFY YOUR HOMESTEADS,
BY A SAWED PALING OR PICKET FENCE;
the cheapest fence that can be made. A board at bottom of a foot width or so, and 2 string pieces of 2 by 4 inches wide, all of Hemlock; and Palings 3 in. wide by 4 or 4½ or 5 feet long, and ⅜ inch thick, of Spruce or Pine. Orders sent to the Proprietors of the American Farmer, Baltimore, will be filled from the yard at *the lowest prices*, but a very considerable discount from those prices, will be made upon orders left ahead, enabling the seller to contract early with the agents here of the Eastern Saw Mills, and to deliver from vessel, saving all expense of handling, hauling, storing, &c. and thus to afford them to the Farmers at much lower prices than they have ever before purchased at. Several farmers uniting to increase their order would secure an advantage in price, and also probably in the freight from Baltimore, to the consumer. jy1

Maryland Cattle Show.

RULES AND REGULATIONS FOR TRIALS OF SPEED, TO TAKE PLACE ON THE TRACK AT THE SHOW GROUNDS, CHARLES STREET, EXTENDED, DURING THE WEEK OF THE CATTLE SHOW OF THE MD. STATE AGRICULTURAL SOCIETY.—All Horses entered for the Society's Premiums to be upon the ground on MONDAY, 29th October, with a full description thereof, ages, gait, and manner of going—as per rules of the Society.

Not more than five Saddle Horses, nor more than two Vehicles and Horses, will be allowed upon the track at one time. Horses and Vehicles to start from opposite points.

Horses taking Premiums on Tuesday or Wednesday, will be allowed to use the track on Thursday or Friday, but cannot compete for a Premium.

A stand with benches will be prepared in the interior of the track, for the accommodation of ladies accompanying Members, but no Member will be allowed to enter the ring or track unless accompanied by a lady.

No Premium allowed unless the animal be thought worthy by Judges.

The settlement of any misunderstanding or difficulty to be with the Judges of the day.

Horses, Mares and Geldings under four years old, to go around the track three times, whether under saddle, or in single or double harness.

The undersigned committee suggest the propriety of an additional premium of $10 to the pair of Horses, Mares or Geldings, or mixed, showing, in the opinion of the Judges, the finest style, speed and action: and $5 each to the Horse, Mare and Gelding under saddle, also in harness, exhibited on Thursday and Friday.

FIRST DAY—Tuesday, October 30.

From 12 o'clock until 12½—Horses, Mares and Geldings, for racking and pacing, all ages, under saddle. Premiums—as by the published rules of the Society.

From 12½ o'clock until 1—Horses, Mares and Geldings, under 4 years old, trotting under saddle.

From 1 o'clock until 1½—Pacers, all ages, single harness. Premiums as above.

From 1½ o'clock until 2½—Trotting, under four years old, single harness. Premiums as above.

From 2½ o'clock until 3—Trotting, under four years old, double harness. Premiums as above.

WEDNESDAY, October 31.

From 12 o'clock until 12½—Horses, Mares and Geldings, for pacing, all ages, double harness.

From 12½ o'clock until 1—Horses, Mares and Geldings, for trotting, all ages, saddle.

From 1 o'clock until 2—Horses, Mares and Geldings, for trotting, all ages, single harness.

From 2 o'clock until 3—Horses, Mares and Geldings, for trotting, all ages, double harness.

THURSDAY AND FRIDAY.

Members and subscribers will be allowed the use of the track these two days. First day, Thursday, single horses, &c. &c., in harness, from 12 to 1 o'clock; horses, mares and geldings, in double harness, from 1 to 2 o'clock; horses, mares and geldings, under saddle, from 2 to 3 o'clock.—Fourth day, Friday, horses, mares and geldings, under saddle, from 12 to 1 o'clock; do. double harness, from 1 to 2; do. single harness, 2 to 3.

WILLIAM GILMOR,
ANTHONY KENNEDY, } Committee.
no.1 CHARLES H. PITTS,

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